

Table IV. Hammerhead Ribozyme and Target Sequences

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2639	CAUAGGA CUGAUGAG X CGAA ACAAGAGG	358	CCTCTTGT A TTCTTAIG	1603
2641	GCCAUAGG CUGAUGAG X CGAA AUACAAGA	359	TCTTGTAT T CCTATGCC	1604
2642	UGCCAUAG CUGAUGAG X CGAA AAUACAAG	360	CTTGTATT C CTATGCCA	1605
2645	CAUUGCAC CUGAUGAG X CGAA AGGAAUAC	361	GTATTCCT A TGGAATG	1606
2657	CAUAAAAG CUGAUGAG X CGAA AUGCAUUG	362	CAATGCAT C CTTTTATG	1607
2660	UUUCAUAA CUGAUGAG X CGAA AGGAUGCA	363	TGCATCCT T TTATGAAA	1608
2661	CUUUCUA CUGAUGAG X CGAA AAGGAUGC	364	GCATCCCT T TATGAAAG	1609
2662	ACUUUCAU CUGAUGAG X CGAA AAAGGAUG	365	CATCCCTT T ATGAAAGT	1610
2663	CACUUUCA CUGAUGAG X CGAA AAAAGGAAU	366	ATCCTTTT A TGAAAGTG	1611
2674	UUAAGGUG CUGAUGAG X CGAA ACCACUUU	367	AAAGTGGT A CACCTTAA	1612
2680	AAAGCUUU CUGAUGAG X CGAA AGGUGUAC	368	GTACACCT T AAAGCTTT	1613
2681	AAAAGCUU CUGAUGAG X CGAA AAGGUGUA	369	TACACCTT A AAGCTTTT	1614
2687	UCAUUAUA CUGAUGAG X CGAA AGCUUUA	370	TTAAAGCT T TTATATGA	1615
2688	GUCAUUA CUGAUGAG X CGAA AAGCUUUA	371	TAAAGCTT T TATATGAC	1616
2689	AGUCAUAU CUGAUGAG X CGAA AAAGCUUU	372	AAAGCTTT T ATATGACT	1617
2690	CAGUCAUA CUGAUGAG X CGAA AAAAGCUU	373	AAGCTTTT A TATGACTG	1618
2692	UACAGUCA CUGAUGAG X CGAA AUAAAAGC	374	GCTTTTAT A TGACTGTA	1619
2700	UACUCUGC CUGAUGAG X CGAA ACAGUCAU	375	ATGACTGT A GCAGAGTA	1620
2708	UCACCAGA CUGAUGAG X CGAA ACUCUGCU	376	AGCAGAGT A TCTGGTGA	1621
2710	AAUCACCA CUGAUGAG X CGAA AUACUCUG	377	CAGAGTAT C TGGTGTAT	1622
2718	GAAUUGAC CUGAUGAG X CGAA AUCACCAG	378	CTGGTGTAT T GTCAATIC	1623
2721	AGUGAAUU CUGAUGAG X CGAA ACAAUACAC	379	GTGATTGT C AATTCACT	1624
2725	GGGAAGUG CUGAUGAG X CGAA AUUGACAA	380	TTGTCAT T CACTTCCC	1625
2726	GGGGAAGU CUGAUGAG X CGAA AAUUGACA	381	TGTCAATT C ACTTCCCC	1626
2730	AUAGGGGG CUGAUGAG X CGAA AGUGAAU	382	AATTCACT T CCCCTAT	1627
2731	UAUAGGGG CUGAUGAG X CGAA AAGUGAAU	383	ATTCACCT C CCCCTATA	1628
2737	UAUUCCUA CUGAUGAG X CGAA AGGGGAA	384	TTCCCCCT A TAGGAATA	1629
2739	UGUAAUUC CUGAUGAG X CGAA AUAGGGGG	385	CCCCCTAT A GGAATACA	1630
2745	GCCCCUUG CUGAUGAG X CGAA AUUCCUAU	386	ATAGGAAT A CAAGGGCC	1631
2772	AACUAGGG CUGAUGAG X CGAA AUCUGCCU	387	AGGCAGAT C CCCTAGTT	1632
2777	UGGCAAC CUGAUGAG X CGAA AGGGGAUC	388	GATCCCCCT A GTGGCCA	1633
2780	UCUUGGCC CUGAUGAG X CGAA ACUAGGGG	389	CCCCTAGT T GGCAAGA	1634
2791	GUUAAAUA CUGAUGAG X CGAA AGUCUUGG	390	CCAAGACT T ATTAAAC	1635
2792	AGUAAAAA CUGAUGAG X CGAA AAGUCUUG	391	CAAGACCT A TTTAACT	1636
2794	CAAGUAA CUGAUGAG X CGAA AUAAGUCU	392	AGACTTAT T TAACTTGT	1637
2795	UCAAGUUA CUGAUGAG X CGAA AAUAAGUC	393	GACTTATT T TAACCTGA	1638
2796	AUCAAGUU CUGAUGAG X CGAA AAAUAAGU	394	ACTTATTT T AACTTGAT	1639
2797	UAUCAAGU CUGAUGAG X CGAA AAAUAAG	395	CTTATTTT A ACTTGATA	1640
2801	AGUGUAUC CUGAUGAG X CGAA AGUAAAAA	396	TTTTAACT T GATACACT	1641
2805	CUGCAGUG CUGAUGAG X CGAA AUCAAGUU	397	AACTTGAT A CACTCCAG	1642
2816	ACACUCUG CUGAUGAG X CGAA AUCUGCAG	398	CTGCAGAT T CAGAGTGT	1643
2817	GACACUCU CUGAUGAG X CGAA AAUCUGCA	399	TGCAGATT C AGAGTGTC	1644
2825	AGCUUCAG CUGAUGAG X CGAA ACACUCUG	400	CAGAGTGT C CTGAAGCT	1645
2834	CAGAGGCA CUGAUGAG X CGAA AGCUUCAG	401	CTGAAGCT C TGCCCTTG	1646
2840	GAAAGCCA CUGAUGAG X CGAA AGGCAGAG	402	CTCTGGCT C TGCCCTTC	1647

Table IV. Hammerhead Ribozyme and Target Sequences

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2846	UGACCGGA CUGAUGAG X CGAA AGCCAGAG	403	CTCTGGCT T TCCGGTCA	1648
2847	AUJACCGG CUGAUGAG X CGAA AAGCCAGA	404	TCTGGCTT T CGGGTCAT	1649
2848	CAUGACCG CUGAUGAG X CGAA AAAGCCAG	405	CTGGCTTT C CGGTCAATG	1650
2853	GAACCCAU CUGAUGAG X CGAA ACCGGAAA	406	TTTCCGGT C ATGGGTTC	1651
2860	UUAACUGG CUGAUGAG X CGAA ACCCAUGA	407	TCATGGGT T CCAGTTAA	1652
2861	AUUAACUG CUGAUGAG X CGAA AACCCAU	408	CATGGGTT C CAGTTAAT	1653
2866	CAUGAAU CUGAUGAG X CGAA ACUGGAAC	409	GTTCCAGT T AATTCAATG	1654
2867	GCAUGAAU CUGAUGAG X CGAA AACUGGAA	410	TTCCAGTT A ATTCAATGC	1655
2870	GAGCC AUG CUGAUGAG X CGAA AUUAACUG	411	CAGTTAAT T CATGCCIC	1656
2871	GGAGGCAU CUGAUGAG X CGAA AAUUAACU	412	AGTTAAAT C ATGCCCTCC	1657
2878	GUCCAUGG CUGAUGAG X CGAA AGGCAUGA	413	TCATGCCT C CCATGGAC	1658
2889	GCUCUCCA CUGAUGAG X CGAA AGGUCCAU	414	ATGGACCT A TGAGAGAC	1659
2905	CUAAGAUC CUGAUGAG X CGAA ACUUGUUG	415	CAACAAGT T GATCCTTAG	1660
2909	UUAACUAA CUGAUGAG X CGAA AUCAACUU	416	AAGTTGAT C TTAGTTAA	1661
2911	ACUUAACU CUGAUGAG X CGAA AGAUCAAC	417	GTGATCT T AGTTAAGT	1662
2912	GACUUAAC CUGAUGAG X CGAA AAGAUCAA	418	TIGATCTT A GTTAAGIC	1663
2915	GGAGACUU CUGAUGAG X CGAA ACUAAGAU	419	ATCTTATG T AAGTCCTCC	1664
2916	GGGAGACU CUGAUGAG X CGAA AACUAAGA	420	TCTTAGTT A AGTCCTCCC	1665
2920	UAUAGGGA CUGAUGAG X CGAA ACUUAACU	421	AGTTAAGT C TCCCTATA	1666
2922	CAUAUAGG CUGAUGAG X CGAA AGACUUA	422	TTAACGCT C CCTATATG	1667
2926	CCCUCUAU CUGAUGAG X CGAA AGGGAGAC	423	GTCTCCCT A TATGAGGG	1668
2928	AUCCCUCA CUGAUGAG X CGAA AUAGGGAG	424	CTCCCTAT A TGAGGGAT	1669
2937	CAGGAACU CUGAUGAG X CGAA AUCCCUCA	425	TGAGGGAT A AGTCTCTG	1670
2941	AAAUCAGG CUGAUGAG X CGAA ACUUAUCC	426	GGATAAGT T CCTGATTT	1671
2942	AAAUCAG CUGAUGAG X CGAA AACUUAUC	427	GATAAGTT C CTGATTTT	1672
2948	AAAACAAA CUGAUGAG X CGAA AUCAGGAA	428	TTCTCTGAT T TTGTTTT	1673
2949	AAAAACAA CUGAUGAG X CGAA AAUCAGGA	429	TCCTGATT T TTGTTTTT	1674
2950	UAAAAACCA CUGAUGAG X CGAA AAAUCAGG	430	CCTGATTT T TGTTTTTA	1675
2951	AUAAAAAC CUGAUGAG X CGAA AAAUCAG	431	CTGATTT T GTTTTTAT	1676
2954	AAAAUAAA CUGAUGAG X CGAA ACAAAAAAU	432	ATTTTTGT T TTATTTTT	1677
2955	AAAAUAAA CUGAUGAG X CGAA AACAAAAA	433	TTTTTGTT T TTATTTTT	1678
2956	CAAAAUUA CUGAUGAG X CGAA AAACAAAA	434	TTTTGTTT T TATTTTTG	1679
2957	ACAAAAAU CUGAUGAG X CGAA AAAACAAA	435	TTTGTTTT T ATTTTGT	1680
2958	CACAAAAA CUGAUGAG X CGAA AAAACAAA	436	TTGTTTTT A TTTTGIG	1681
2960	AACACAAA CUGAUGAG X CGAA AUAAAAAC	437	GTTTTTAT T TTGTTGTT	1682
2961	UAACACAA CUGAUGAG X CGAA AAUAAAAA	438	TTTTTATT T TTGIGTTA	1683
2962	GUAACACA CUGAUGAG X CGAA AAAUAAAA	439	TTTTTATT T TGIGTTAC	1684
2963	UGUAACAC CUGAUGAG X CGAA AAAUAAA	440	TTTATTTT T GIGTTACA	1685
2968	UCUUUUGU CUGAUGAG X CGAA ACACAAAA	441	TTTGTGTT T ACAAAAGA	1686
2969	UUCUUUUG CUGAUGAG X CGAA AACACAAA	442	TTTGTGTT A CAAAAGAA	1687
2984	CAGGGAGG CUGAUGAG X CGAA AGGGCUUU	443	AAAGCCCT C CCTCTCTG	1688
2988	AGUUCAGG CUGAUGAG X CGAA AGGGAGGG	444	CCCTCCCT C CCTGAACT	1689
2997	CUUACUGC CUGAUGAG X CGAA AGUUCAGG	445	CCTGAACT T GCAGTAAG	1690
3003	GCUGACCU CUGAUGAG X CGAA ACUGCAAG	446	CTTGGCAGT A AGGTCAGC	1691
3008	CUGAAGCU CUGAUGAG X CGAA ACCUUAUC	447	AGTAAGGT C AGCTTCAG	1692

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3013	AGGUCCUG CUGAUGAG X CGAA AGCUGACC	448	GGTCAGCT T CAGGACCT	1693
3014	CAGGUCCU CUGAUGAG X CGAA AAGCUGAC	449	GTCAGCTT C AGGACCTG	1694
3024	CCCACUGG CUGAUGAG X CGAA ACAGGUCC	450	GGACCTGT T CCAGTGGG	1695
3025	GCCCCACUG CUGAUGAG X CGAA AACAGGUC	451	GACCTGTT C CAGTGGGC	1696
3039	GAUCCAAG CUGAUGAG X CGAA ACAGUGCC	452	GGCACTGT A CTGGATTC	1697
3042	GAAGAUCC CUGAUGAG X CGAA AGUACAGU	453	ACTGTACT T GGATCTTC	1698
3047	GCCCCGGAA CUGAUGAG X CGAA AUCCAAGU	454	ACTTGGAT C TTCCCCGGC	1699
3049	AAGGCCGG CUGAUGAG X CGAA AGAUCCAA	455	TGGATCTT T CCCGGCGT	1700
3050	CAAGCCGG CUGAUGAG X CGAA AAGAUCCA	456	TGGATCTT C CGGGCGTG	1701
3068	CCCUGUGU CUGAUGAG X CGAA AGGCACAC	457	GTGTGCCT T ACACAGGG	1702
3069	CCCCUGUG CUGAUGAG X CGAA AAGGCACA	458	TGTGCCTT A CACAGGGG	1703
3086	CCACAGUG CUGAUGAG X CGAA ACAGUUC	459	TGAACITG T CACTGTGG	1704
3087	ACCACAGU CUGAUGAG X CGAA AACAGUUC	460	GAACITGT C ACTGTGGT	1705
3112	CUACCAUU CUGAUGAG X CGAA ACCCUAU	461	ATGAGGGT A AATGGTAG	1706
3119	CUUCAAC CUGAUGAG X CGAA ACCAUUUA	462	TAAATGGT A GTTGAAG	1707
3122	CUCCUUUC CUGAUGAG X CGAA ACUACCAU	463	ATGGTAGT T GAAAGGAG	1708
3146	CUAAUUGC CUGAUGAG X CGAA ACACCAAG	464	CCTGGTGT T GCATTTAG	1709
3151	CAGGGCUA CUGAUGAG X CGAA AUGCAACA	465	TGTIGCAT T TAGCCCTG	1710
3152	CCAGGGCU CUGAUGAG X CGAA AAUGCAAC	466	GTIGCATT T AGCCCTGG	1711
3153	CCCAGGGC CUGAUGAG X CGAA AAAUGCAA	467	TTGCATT T AGCCCTGGG	1712
3179	UGCACAAG CUGAUGAG X CGAA ACUGUUC	468	TGAACAGT A CTIGTGCA	1713
3182	UCCUGCAC CUGAUGAG X CGAA AGUACUGU	469	ACAGTACT T GTGCAGGA	1714
3192	GCCACAAAC CUGAUGAG X CGAA AUCCUGCA	470	TGCAGGAT T GTIGTGCC	1715
3195	GUAGCCAC CUGAUGAG X CGAA ACAAUCCU	471	AGGATTGT T GTGGCTAC	1716
3202	UUCUCUAG CUGAUGAG X CGAA AGCCACAA	472	TTGIGGCT A CTAGAGAA	1717
3205	UUGUUCUC CUGAUGAG X CGAA AGUAGCCA	473	TGGCTACT A GAGAACAA	1718
3224	UUCUGCCC CUGAUGAG X CGAA ACUUUCCC	474	GGGAAAGT A GGGCAGAA	1719
3240	CAGAACUG CUGAUGAG X CGAA AUCCAGUU	475	AACTGGAT A CAGTTCIG	1720
3245	GUGCUAG CUGAUGAG X CGAA ACUGUAUC	476	GATACTGT T CTGAGCAC	1721
3246	UGUGGUCA CUGAUGAG X CGAA AACUGUAU	477	ATACAGIT C TGAGCACA	1722
3263	ACCUUGGC CUGAUGAG X CGAA AGUCUGGC	478	GCCAGACT T GCTCAGGT	1723
3267	GGCCACCU CUGAUGAG X CGAA AGCAAGUC	479	GACTTGCT C AGGTGGCC	1724
3293	UUCCUAGG CUGAUGAG X CGAA AGCUGGAG	480	CTGCAGCT A CCTAGGAA	1725
3297	AAUGUUCC CUGAUGAG X CGAA AGGUAGCU	481	AGCTACCT A GGAACATT	1726
3305	CUGCAAGG CUGAUGAG X CGAA AUGUUCU	482	AGGAACAT T CCTTGCAG	1727
3306	UCUGCAAG CUGAUGAG X CGAA AAUGUUC	483	GGAACATT C CTIGCAGA	1728
3309	GGGUCLUG CUGAUGAG X CGAA AGGAAAGU	484	ACATTCCT T GCAGACCC	1729
3323	CCAAAGGC CUGAUGAG X CGAA AUGGGGGG	485	CCCCGCAT T GCCTTTGG	1730
3328	CACCCCCA CUGAUGAG X CGAA AGGCAAU	486	CATTGCCT T TGGGGTGT	1731
3329	GCACCCCCC CUGAUGAG X CGAA AAGGCAAU	487	ATIGCCCT T GGGGGTGC	1732
3346	ACCCCAAGG CUGAUGAG X CGAA AUCCCAGG	488	CCTGGGAT C CCTGGGGT	1733
3355	AGCUGGAC CUGAUGAG X CGAA ACCCCAGG	489	CCTGGGGT A GTCCAGCT	1734
3358	AAGAGCUG CUGAUGAG X CGAA ACUACCCC	490	GGGGTAGT C CAGCTCTT	1735
3364	AUGAAUAA CUGAUGAG X CGAA AGCUGGAC	491	GTCCAGCT C TTATICAT	1736
3366	AAAUGAAU CUGAUGAG X CGAA AGACCUUGG	492	CCAGCTCT T ATTACATT	1737

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Table IV. Hammerhead Ribozyme and Target Sequences

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3367	GAAUAGAA CUGAUGAG X CGAA AAGAGCUG	493	CAGCTCTT A TTCAATT	1738
3369	GGGAAAUG CUGAUGAG X CGAA AAUAGAGC	494	GCTCTTAT T CATTTCCC	1739
3370	UGGGAAAU CUGAUGAG X CGAA AAUAGAG	495	CTCCTTATT C ATTCCCA	1740
3373	CGCUGGGA CUGAUGAG X CGAA AUGAAUA	496	TTATTCAT T TCCAGCG	1741
3374	ACGCUGGG CUGAUGAG X CGAA AAUGAAUA	497	TATTCATT T CCCAGCGT	1742
3375	CACCCUGG CUGAUGAG X CGAA AAAUGAAU	498	ATTCAATT C CCAGCGTG	1743
3392	CUUCUOCC CUGAUGAG X CGAA ACCAGGGC	499	GCCCCGGT T GGAAGAAG	1744
3408	UACAAACU CUGAUGAG X CGAA ACAGCUGC	500	GCAGCTGT C AAGTTGTA	1745
3413	CUGUCUAC CUGAUGAG X CGAA ACUUGACA	501	TGTCAAGT T GTAGACAG	1746
3416	CAGCUGUC CUGAUGAG X CGAA ACAACUUG	502	CAAGTTGT A GACAGCTG	1747
3428	AUUGUAGG CUGAUGAG X CGAA ACACAGCU	503	AGCTGTGT T CCTACAAAT	1748
3429	AAUUGUAG CUGAUGAG X CGAA AACACAGC	504	GCTGTGT C CTACAATT	1749
3432	GCCAAUUG CUGAUGAG X CGAA AGGAACAC	505	GTGTTCCCT A CAATTGGC	1750
3437	GCUGGGCC CUGAUGAG X CGAA AUUGUAGG	506	CCTACAAAT T GGGCCAGC	1751
3478	GUGACAGC CUGAUGAG X CGAA ACGGUCCC	507	GGGACCGT T GCTGTCAC	1752
3484	UGAGUAGU CUGAUGAG X CGAA ACAGCAAC	508	GTGTCGTG C ACTACTCA	1753
3488	AGCCUGAG CUGAUGAG X CGAA AGUGACAG	509	CTGTCACT A CTCAGGCT	1754
3491	GUCAGCCU CUGAUGAG X CGAA AGUAGUGA	510	TCACTACT C AGGCTGAC	1755
3511	CGUAAUCU CUGAUGAG X CGAA ACCAGGGC	511	GGCCTGGT C AGATTACG	1756
3516	GCAUACGU CUGAUGAG X CGAA AUCUGACC	512	GGTCAGAT T ACGTATGC	1757
3517	GGCAUACG CUGAUGAG X CGAA AAUCUGAC	513	GTCAGATT A CGTATGCC	1758
3521	CAAGGGCA CUGAUGAG X CGAA ACCGAAUC	514	GATTACGT A TGCCCTTG	1759
3528	AAACCACC CUGAUGAG X CGAA AGGGCAUA	515	TATGCCCT T GGTGGTTT	1760
3535	UAUCUCUA CUGAUGAG X CGAA ACCACCAA	516	TGGTGGT T TAGAGATA	1761
3536	UUAAUCUC CUGAUGAG X CGAA AACCACCA	517	TGGTGGTT T AGAGATAA	1762
3537	AUUAUCUC CUGAUGAG X CGAA AAACCAAC	518	GGTGGTTT A GAGATAAT	1763
3543	UUUUGGAU CUGAUGAG X CGAA AUCUCUAA	519	TTAGAGAT A ATCCAAAA	1764
3546	UGAUUUUG CUGAUGAG X CGAA AUUAUCUC	520	GAGATAAT C CAAAATCA	1765
3553	CAAACOCU CUGAUGAG X CGAA AUUUUGGA	521	TCCAAAT C AGGGTTIG	1766
3559	CCAAACCA CUGAUGAG X CGAA ACCCUGAU	522	ATCAGGGT T TGGTTTGG	1767
3560	CCCAAAACC CUGAUGAG X CGAA AACCCUGA	523	TCAGGGTT T GGTTTGGG	1768
3564	CUUCCCCA CUGAUGAG X CGAA ACCAAACC	524	GGTTTGGT T TGGGAAG	1769
3565	UCUUCCCC CUGAUGAG X CGAA AACCAAAC	525	GTTTGGTT T GGGGAAGA	1770
3578	AGGGGGAG CUGAUGAG X CGAA AUUUUCUU	526	AAGAAAAT C CTCCCCCT	1771
3581	GGAAGGGG CUGAUGAG X CGAA AGGAUUUU	527	AAAATCCT C CCCCCCTCC	1772
3587	GGGGGAGG CUGAUGAG X CGAA AGGGGGAG	528	CTCCCCCT T CCTCCCCC	1773
3588	CGGGGGAG CUGAUGAG X CGAA AAGGGGGG	529	TCCCCCTT C CTCCCCCG	1774
3591	GGGGGGGG CUGAUGAG X CGAA AGGAAGGG	530	CCCCCTCT C CCCCCGCC	1775
3603	CGGUAGGG CUGAUGAG X CGAA ACGGGGCG	531	CGCCCCGT T CCCTACCG	1776
3604	GCGGUAGG CUGAUGAG X CGAA AACGGGGC	532	GCCCCGTT C CCTACCGC	1777
3608	GGAGGGGG CUGAUGAG X CGAA AGGGAACG	533	CGTTCCCT A CGGCTCC	1778
3615	CAGGAGUG CUGAUGAG X CGAA AGGCGGUA	534	TACCGCCT C CACTCCIG	1779
3620	GCUGGCGAG CUGAUGAG X CGAA AGUGGAGG	535	CCTCCACT C CTGCCAGC	1780
3630	AAGGAAAU CUGAUGAG X CGAA AGCUGGCCA	536	TGCCAGCT C ATTCCCTT	1781
3633	UUGAAGGA CUGAUGAG X CGAA AUGAGCCG	537	CAGCTCAT T TCCTTCAA	1782

Table IV. Leaderhead Ribozyme and Target Sequences

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3634	AUUGAAGG CUGAUGAG X CGAA AAUGAGCU	538	AGCTCATT T CCTCAAT	1783
3635	AAUUGAAG CUGAUGAG X CGAA AAAUGAGC	539	GCTCATTT C CTICAATT	1784
3638	GGAAAUUG CUGAUGAG X CGAA AGGAAAUG	540	CATTCCTT T CAATTICC	1785
3639	AGGAAAUU CUGAUGAG X CGAA AAGGAAAU	541	ATTCCTT C AATTCCT	1786
3643	UCAAAGGA CUGAUGAG X CGAA AUUGAAGG	542	CCTCAAT T TCCCTTGA	1787
3644	GUCAAAGG CUGAUGAG X CGAA AAUUGAAG	543	CTTCAATT T CCCTTGAC	1788
3645	GGUCAAAG CUGAUGAG X CGAA AAAUUGAA	544	TTCATTT C CTTTGACC	1789
3648	AUAGGUCA CUGAUGAG X CGAA AGGAAAU	545	AATTCCTT T TGACCTAT	1790
3649	UAUAGGUC CUGAUGAG X CGAA AAGGAAAU	546	ATTCCTT T GACCTATA	1791
3655	UUAGCCUA CUGAUGAG X CGAA AGGUAAA	547	TTTGCCTT A TAGGCTAA	1792
3657	UUUAGGCC CUGAUGAG X CGAA AUAGGUCA	548	TGACCTAT A GGCTAAAA	1793
3662	UUCUUUUU CUGAUGAG X CGAA AGCCUAUA	549	TATAGGCT A AAAAAGAA	1794
3676	GCUGGAAU CUGAUGAG X CGAA AGCCUUUC	550	GAAAGGCT C ATTCCAGC	1795
3679	GUGGUGG CUGAUGAG X CGAA AUGAGCCU	551	AGGCTCAT T CCAGCCAC	1796
3680	UGUGGCUG CUGAUGAG X CGAA AAUGAGCC	552	GGCTCATT C CAGCCACA	1797
3698	GGCCAGGG CUGAUGAG X CGAA AGGCUGOC	553	GGCAGCCT T CCCTGGGC	1798
3699	GGGCCAGG CUGAUGAG X CGAA AAGGCUGC	554	GCAGCCCT C CCTGGGCC	1799
3709	GAGAAGCA CUGAUGAG X CGAA AGGCCAG	555	CTGGGCCT T TGCTTCTC	1800
3710	AGAGAACG CUGAUGAG X CGAA AAGGCCCA	556	TGGGCCTT T GCTCTCT	1801
3714	UGCUGAG CUGAUGAG X CGAA ACCAAAGG	557	CCTTGTCT T CTCTAGCA	1802
3715	GUGCUAGA CUGAUGAG X CGAA AAGCAAAG	558	CTTGTCTT C TCTAGCAC	1803
3717	UUGUGCUA CUGAUGAG X CGAA AGAACCAA	559	TTGCTCT C TAGCACAA	1804
3719	AAUUGUGC CUGAUGAG X CGAA AGAGAACG	560	GCTTCTCT A GCACAATT	1805
3727	UAACCCA UCGAUGAG X CGAA AUUGUGCU	561	AGCACAAT T ATGGGTTA	1806
3728	GUAAACCA CUGAUGAG X CGAA AAUUGUGC	562	GCACAATT A TGGGTTAC	1807
3734	AAGGAAGU CUGAUGAG X CGAA ACCCAUAA	563	TTATGGGT T ACTCCCTT	1808
3735	AAAGGAAG CUGAUGAG X CGAA AACCCAU	564	TATGGGTT A CTTCCTTT	1809
3738	GAAAAAGG CUGAUGAG X CGAA AGUAACCC	565	GGGTTACT T CCTTTTTC	1810
3739	AGAAAAAG CUGAUGAG X CGAA AAGUAACC	566	GGTTACTT C CTTTTTCT	1811
3742	UUAAGAAA CUGAUGAG X CGAA AGGAAGUA	567	TACTTCCT T TTCTTAA	1812
3743	GUUAAGAA CUGAUGAG X CGAA AAGGAAGU	568	ACTTCCTT T TCTTAAC	1813
3744	UGUUAAGA CUGAUGAG X CGAA AAAGGAAG	569	CTTCCTTT T TCTTAACA	1814
3745	UUGUUAAG CUGAUGAG X CGAA AAAAGGAA	570	TTCCTTTT T CTTAACAA	1815
3746	UUUGUAA CUGAUGAG X CGAA AAAAAGGA	571	TCCCTTTT C TTAACAAA	1816
3748	UUUUGUU CUGAUGAG X CGAA AGAAAAAG	572	CTTTTCT T AACAAAAA	1817
3749	UUUUUGU CUGAUGAG X CGAA AAGAAAAA	573	TTTTCTCT T ACACAAAA	1818
3764	GGAAAUCA CUGAUGAG X CGAA ACAUUCU	574	AAGAATGT T TGATTTC	1819
3765	AGGAAAU CUGAUGAG X CGAA AACAUUCU	575	AGAATGTT T GATTTCCT	1820
3769	CCAGAGGA CUGAUGAG X CGAA AUCAAACA	576	TGTTTGAT T TCCCTCTGG	1821
3770	CCCAGAGG CUGAUGAG X CGAA AAUCAAAC	577	GTTTGATT T CCTCTGGG	1822
3771	ACCCAGAG CUGAUGAG X CGAA AAAUCAAA	578	TTTGTATT C CTCGGGT	1823
3774	GUCAACCA CUGAUGAG X CGAA AGGAAAU	579	GATTCCTT C TGGGTGAC	1824
3785	CAGACAAU CUGAUGAG X CGAA AGGUCACC	580	GGTGCCTT T ATGIGCTG	1825
3786	ACAGACAA CUGAUGAG X CGAA AAGGUAC	581	GTGACCTT A TTGCTGT	1826
3788	UUACAGAC CUGAUGAG X CGAA AUAGGUC	582	GACCTTAT T GTCTGTAA	1827

Table IV. Hammerhead Prozyme and Target Sequences

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3791	CAAUUACA CUGAUGAG X CGAA ACAAAUAG	583	CTTATTGT C TGTAATTG	1828
3795	GUUUCAAU CUGAUGAG X CGAA ACAGACAA	584	TIGICIGT A ATTGAAAC	1829
3798	AGGGUUUC CUGAUGAG X CGAA AUUACAGA	585	TCTGTAAT T GAAACCCCT	1830
3807	CCUCUCAA CUGAUGAG X CGAA AGGGUUUC	586	GAAACCCCT A TTGAGAGG	1831
3809	CACCUCUC CUGAUGAG X CGAA AUAGGGUU	587	AACCCATAT T GAGAGGTG	1832
3822	CUAACACA CUGAUGAG X CGAA ACAUCACC	588	GGTGATGT C TGTTGTTAG	1833
3828	CAUUGGCU CUGAUGAG X CGAA ACACAGAC	589	GTCIGIGT T AGCCAATG	1834
3829	UCAUUGGC CUGAUGAG X CGAA AACACAGA	590	TCTGIGTT A GCCAATGA	1835
3845	CGAGCAGC CUGAUGAG X CGAA ACCUGGGU	591	ACCCAGGT A GCTGCTCG	1836
3852	AGAAGCCC CUGAUGAG X CGAA ACCAGCUA	592	TAGCTGCT C GGGCTTCT	1837
3858	ACCAAGAG CUGAUGAG X CGAA AGCCCGAG	593	CTCGGGCT T CTCTTGGT	1838
3859	UACCAAGA CUGAUGAG X CGAA AAGCCCGA	594	TCGGGCTT C TCTTGGTA	1839
3861	CAUACCAA CUGAUGAG X CGAA AGAAGCCC	595	GGGCTTCT C TTGGTATG	1840
3863	GACAUACC CUGAUGAG X CGAA AGAGAAGC	596	GCTCTCT T GGTATGTC	1841
3867	ACAAGACA CUGAUGAG X CGAA ACCAAGAG	597	CCTCTGGT A TGCTCTGT	1842
3871	CCAAACAA CUGAUGAG X CGAA ACAUACCA	598	TGGTATGT C TTGTTTGG	1843
3873	UUCCAAAC CUGAUGAG X CGAA AGACAUAC	599	GTATGCT T GTTTGGAA	1844
3876	CUUUCCA CUGAUGAG X CGAA ACAAGACA	600	TGCTCTGT T TGGAAAAG	1845
3877	ACUUUUCC CUGAUGAG X CGAA AACAAAGAC	601	GCTCTGGT T GGAAAAGT	1846
3890	AUGAAUGA CUGAUGAG X CGAA AUCCACUU	602	AAGTGGAT T TCATTTCAT	1847
3891	AAUGAAUG CUGAUGAG X CGAA AAUCCACU	603	AGTGGATT T CATTTCATT	1848
3892	AAAUGAAU CUGAUGAG X CGAA AAAUCCAC	604	GTCGATT T CATTTCATT	1849
3895	CAGAAAUG CUGAUGAG X CGAA AUGAAAUC	605	GATTTCAT T CATTTCIG	1850
3896	UCAGAAAAU CUGAUGAG X CGAA AAUGAAAU	606	ATTTTCATT C ATTTTCIG	1851
3899	CAAUCAGA CUGAUGAG X CGAA AUGAAUGA	607	TCATTTCAT T TCIGATIG	1852
3900	ACAAUCAG CUGAUGAG X CGAA AAUGAAUG	608	CATTTCATT T CTGATTGT	1853
3901	GACAAUCA CUGAUGAG X CGAA AAAUGAAU	609	ATTCATTT C TGATTGTC	1854
3906	AACUGGAC CUGAUGAG X CGAA AUCAGAAA	610	TTTCTGAT T GTCAGTT	1855
3909	CUUAACUG CUGAUGAG X CGAA ACAAUCAG	611	CTGATTGT C CAGTTAAG	1856
3914	GAUCACUU CUGAUGAG X CGAA ACUGGACA	612	TGTCAGT T AAGTGATC	1857
3915	UGAUCACU CUGAUGAG X CGAA AACUGGAC	613	GTCCAGTT A AGTGATCA	1858
3922	CCUUUGGU CUGAUGAG X CGAA AUCACUUA	614	TAAGTGAT C ACCAAAGG	1859
3940	CCCCUCCCA CUGAUGAG X CGAA AUUCUCAG	615	CTGAGAAT C TGGGAGGG	1860
3968	CACAUAAA CUGAUGAG X CGAA ACUUUUUU	616	AAAAAAAGT T TTATGTG	1861
3969	GCACAUAA CUGAUGAG X CGAA AACUUUUU	617	AAAAAGTT T TTATGTGC	1862
3970	UGCACAUAA CUGAUGAG X CGAA AAACUUUU	618	AAAAGTTT T TAIGTGCA	1863
3971	GUGCACAU CUGAUGAG X CGAA AAAACUUU	619	AAAGTTTT T ATGIGCAC	1864
3972	AGUGCACA CUGAUGAG X CGAA AAAAACUU	620	AAGTTTT A TGIGCACT	1865
3981	CCAAAUUU CUGAUGAG X CGAA AGUGCACA	621	TGIGCACT T AAATTGG	1866
3982	CCCCAAUU CUGAUGAG X CGAA AAGUGCAC	622	GTGCACTT A AATTGGGG	1867
3986	UGUCCCCA CUGAUGAG X CGAA AUUUAGU	623	ACTTAAAT T TGGGGACA	1868
3987	UUGUCCCC CUGAUGAG X CGAA AAUUAAG	624	CTTAAATT T GGGGACAA	1869
3997	AUACAUAA CUGAUGAG X CGAA AUUGUCCC	625	GGGACAAT T TTATGTAT	1870
3998	GAUACAUAA CUGAUGAG X CGAA AAUUGUCC	626	GGACAATT T TAIGTGATC	1871
3999	AGAUACAU CUGAUGAG X CGAA AAAUUGUC	627	GACAATT T ATGTATCT	1872

Table IV. Hammerhead Ribozyme and Target Sequences

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4000	CAGAUACA CUGAUGAG X CGAA AAAAUUGU	628	ACAATTTC A TGTATCTG	1873
4004	AACACAGA CUGAUGAG X CGAA ACAUAAA	629	TTTATGTA A TCIGIGTT	1874
4006	UUACACCA CUGAUGAG X CGAA AUACAUAA	630	TTATGTTA C TGIGTTAA	1875
4012	AUAUCCUU CUGAUGAG X CGAA ACACAGAU	631	ATCTGTTA T AAGGATAT	1876
4013	CAUACCU CUGAUGAG X CGAA AACACAGA	632	TCIGTGTT A AGGATAIG	1877
4019	CUUAAGCA CUGAUGAG X CGAA AUCCUUAA	633	TTAAGGAT A TGCTTAAG	1878
4024	AUGUUCUU CUGAUGAG X CGAA AGCAUAUC	634	GATATGCT T AAGAACAT	1879
4025	UAUGUUCU CUGAUGAG X CGAA AAGCAUAU	635	ATATGTT A AGAACATA	1880
4033	AAAAGAAU CUGAUGAG X CGAA AUGUUCUU	636	AAGAACAT A ATTCTTTT	1881
4036	AACAAAAG CUGAUGAG X CGAA AUUAUGUU	637	AACATAAT T CTTTGTGTT	1882
4037	CAACAAAA CUGAUGAG X CGAA AAUUAUGU	638	ACATAATT C TTTTGTTG	1883
4039	AGCAACAA CUGAUGAG X CGAA AGAAUUAU	639	ATAATTCT T TIGTTGCT	1884
4040	CAGCAACA CUGAUGAG X CGAA AAGAAUUA	640	TAATTCTT T TGTTGCTG	1885
4041	ACAGCAAC CUGAUGAG X CGAA AAAGAAUJU	641	AATTCTTT T GTGCTGTT	1886
4044	CAAACAGC CUGAUGAG X CGAA ACAAAAGA	642	TCTTTGTT T GCTGTTTG	1887
4050	CUUAAACA CUGAUGAG X CGAA ACAGCAAC	643	GTTGCTGT T TGTTTAAG	1888
4051	UCUAAAAC CUGAUGAG X CGAA AACAGCAA	644	TTGCTGTT T GTTTAAGA	1889
4054	GCUUCUUA CUGAUGAG X CGAA ACAAACAG	645	CTGTTGTT T TAAGAACG	1890
4055	UGCUUCUU CUGAUGAG X CGAA AACAAACAA	646	TGTTTGTGTT A AAGAACGA	1891
4056	GUGCUCU CUGAUGAG X CGAA AAACAAAC	647	GTTTGTGTT A AGAACAC	1892
4067	AACAAACU CUGAUGAG X CGAA AGGUGCUU	648	AAGCACCT T AGTTTGTGTT	1893
4068	AAACAAAC CUGAUGAG X CGAA AAGGUGCU	649	AGCACCTT A GTTGTGTT	1894
4071	CUUAAACA CUGAUGAG X CGAA ACUAAGGU	650	ACCTTAGT T TGTTTAAG	1895
4072	UCUAAAAC CUGAUGAG X CGAA AACUAAGG	651	CCCTAGTT T GTTTAAGA	1896
4075	GCUUCUUA CUGAUGAG X CGAA ACAAACUA	652	TAGTTGTT T TAAGAACG	1897
4076	UGCUUCUU CUGAUGAG X CGAA AACAAACU	653	AGTTTGTGTT A AAGAACGA	1898
4077	GUGCUCU CUGAUGAG X CGAA AAACAAAC	654	GTTTGTGTT A AGAACAC	1899
4088	UACUAAU CUGAUGAG X CGAA AGGUGCUU	655	AAGCACCT T ATATAGTA	1900
4089	AUACUAA CUGAUGAG X CGAA AAGGUGCU	656	AGCACCTT A TATAGTAT	1901
4091	UUAUACUA CUGAUGAG X CGAA AUAGGUG	657	CACCTAT A TAGTATAA	1902
4093	UAUUAUAC CUGAUGAG X CGAA AUUAAGG	658	CCCTATAT A GTATAATA	1903
4096	AUUAUUA CUGAUGAG X CGAA ACUUAUUA	659	TATATAGT A TAATATAT	1904
4098	AUUAUAAU CUGAUGAG X CGAA AUACUAAU	660	TATAGTAT A ATATATAT	1905
4101	AAAAUUA CUGAUGAG X CGAA AUUUAACU	661	AGTATAAT A TATATTTT	1906
4103	AAAAAAUA CUGAUGAG X CGAA AUUAUUA	662	TATAATAT A TATTTTTT	1907
4105	CAAAAAAA CUGAUGAG X CGAA AUUAUUA	663	TAATATAT A TTTTTTG	1908
4107	UUCAAAAA CUGAUGAG X CGAA AUUAUUAU	664	ATATATAT T TTTTTGAA	1909
4108	UUUCAAAA CUGAUGAG X CGAA AAUAUUA	665	TATATATT T TTTTGAAA	1910
4109	AUUCAAA CUGAUGAG X CGAA AAAUAUAU	666	ATATATTT T TTGAAAT	1911
4110	AAUUCAA CUGAUGAG X CGAA AAAAUUA	667	TATATTTT T TTGAAATT	1912
4111	UAAUUCA CUGAUGAG X CGAA AAAAUAU	668	ATATTTTT T TGAAATTA	1913
4112	GUAAUJUC CUGAUGAG X CGAA AAAAUUA	669	TATTTTTT T GAAATTAC	1914
4118	ACCAAUU CUGAUGAG X CGAA AUUCAAA	670	TTTGAAAT T ACATTGCT	1915
4119	AAGCAAUG CUGAUGAG X CGAA AAUJUCAA	671	TTGAAATT A CATTGCTT	1916
4123	AAACAAGC CUGAUGAG X CGAA AUGUAUJU	672	AATTACAT T GCTGTTT	1917

Table IV. Hammerhead Ribozyme and Target Sequences

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4127	UGAUAAAC CUGAUGAG X CGAA AGCAAUU	673	ACATTGCT T GTTTATCA	1918
4130	GUCUGAUA CUGAUGAG X CGAA ACAAGCAA	674	TTCCTGT T TATCAGAC	1919
4131	UGUCUGAU CUGAUGAG X CGAA AACAAACCA	675	TGCTTGT T ATCAGACA	1920
4132	UUGUCUGA CUGAUGAG X CGAA AAACAAGC	676	GCTTGT T A TCAGACAA	1921
4134	AAUUGUCU CUGAUGAG X CGAA AUAAAACAA	677	TTGTTTAT C AGACAATT	1922
4142	CUACAUUC CUGAUGAG X CGAA AUUGUCUG	678	CAGACAAT T GAATGTAG	1923
4149	AGAAUUAC CUGAUGAG X CGAA ACAUUCAA	679	TTGAATGT A GTAATTCT	1924
4152	AACAGAAU CUGAUGAG X CGAA ACUACAUU	680	AATGTAGT A ATTCTGTT	1925
4155	CAGAACAG CUGAUGAG X CGAA AUUACUAC	681	GTAGTAAT T CTGTTCTG	1926
4156	CCAGAAC A CUGAUGAG X CGAA AAUUACUA	682	TAGTAATT C TGTTCTGG	1927
4160	AAAIUCCAG CUGAUGAG X CGAA ACAGAAUU	683	AATTCTGT T CTGGATTT	1928
4161	UAAAUCCA CUGAUGAG X CGAA AACAGAAU	684	ATTCTGTT C TGGATTTA	1929
4167	UCAAAUUA CUGAUGAG X CGAA AUCCAGAA	685	TTCTGGAT T TAATTTGA	1930
4168	GUCAAAUU CUGAUGAG X CGAA AAUCCAGA	686	TCTGGATT T AATTIGAC	1931
4169	AGUAAAUA CUGAUGAG X CGAA AAAUCCAG	687	CTGGATT T AATTGACT	1932
4172	CCCAGUCA CUGAUGAG X CGAA AUUAAAUC	688	GATTTAAT T TGACTGGG	1933
4173	ACCCAGUC CUGAUGAG X CGAA AAUJAAAUA	689	ATTTAATT T GACTGGGT	1934
4182	UGCAUGUU CUGAUGAG X CGAA ACCCAGUC	690	GACTGGGT T AACATGCA	1935
4183	UUGCAGU CUGAUGAG X CGAA AACCCAGU	691	ACTGGGTT A ACATGCAA	1936
4207	AAACUAAA CUGAUGAG X CGAA AUUUUUC	692	GGAAAAAT A TTAGTTTT	1937
4209	AAAAACUA CUGAUGAG X CGAA AUAUUUUU	693	AAAAATAT T TAGTTTTT	1938
4210	AAAAAACU CUGAUGAG X CGAA AAUAUUUU	694	AAAATATT T AGTTTTTT	1939
4211	AAAAAAAC CUGAUGAG X CGAA AAAUAUUU	695	AAATATT T GTTTTTTT	1940
4214	AAAAAAA CUGAUGAG X CGAA ACUAAAUA	696	TATTTAGT T TTTTTTTT	1941
4215	AAAAAAA CUGAUGAG X CGAA AACUAAAU	697	ATTTAGTT T TTTTTTTT	1942
4216	AAAAAAA CUGAUGAG X CGAA AAACUAAA	698	TTTAGTTT T TTTTTTTT	1943
4217	AAAAAAA CUGAUGAG X CGAA AAAACUAA	699	TTAGTTTT T TTTTTTTT	1944
4218	AAAAAAA CUGAUGAG X CGAA AAAAACUA	700	TAGTTTT T TTTTTTTT	1945
4219	AAAAAAA CUGAUGAG X CGAA AAAAAACU	701	AGTTTTTT T TTTTTTTT	1946
4220	AAAAAAA CUGAUGAG X CGAA AAAAAAAC	702	GTTTTTTT T TTTTTTTT	1947
4221	AAAAAAA CUGAUGAG X CGAA AAAAAAAA	703	TTTTTTTT T TTTTTTTT	1948
4222	CAAAAAAA CUGAUGAG X CGAA AAAAAAAA	704	TTTTTTTT T TTTTTTTG	1949
4223	ACAAAAAA CUGAUGAG X CGAA AAAAAAAA	705	TTTTTTTT T TTTTTTGT	1950
4224	UACAAAAA CUGAUGAG X CGAA AAAAAAAA	706	TTTTTTTT T TTTTTGTA	1951
4225	AUACAAAA CUGAUGAG X CGAA AAAAAAAA	707	TTTTTTTT T TTTTGTAT	1952
4226	UAIUACAA CUGAUGAG X CGAA AAAAAAAA	708	TTTTTTTT T TTIGTATA	1953
4227	GUAUACAA CUGAUGAG X CGAA AAAAAAAA	709	TTTTTTTT T TTGTATAC	1954
4228	AGUAUACA CUGAUGAG X CGAA AAAAAAAA	710	TTTTTTTT T TGTATACT	1955
4229	AAGUAUAC CUGAUGAG X CGAA AAAAAAAA	711	TTTTTTTT T GTATACIT	1956
4232	GAAAAGUA CUGAUGAG X CGAA ACAAAAAA	712	TTTTTTGT A TACTTTTC	1957
4234	UUGAAAAG CUGAUGAG X CGAA AUACAAAA	713	TTTTGTAT A CTTTICAA	1958
4237	AGCUUGAA CUGAUGAG X CGAA AGUAUACA	714	TGTATACT T TICAAGCT	1959
4238	UAGCUUGA CUGAUGAG X CGAA AAGUAUAC	715	GTATACIT T TCAAGCTA	1960
4239	GUAGCUUG CUGAUGAG X CGAA AAAGUUA	716	TATACITT T CAAGCTAC	1961
4240	GGUAGCUU CUGAUGAG X CGAA AAAAGUAU	717	ATACCTTT C AAGCTACC	1962

Table IV. Hammerhead Ribozyme and Target Sequences

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4246	UGACAAGG CUGAUGAG X CGAA AGCUUUGAA	718	TTCAGCT A CCTTGICA	1963
4250	UACAUAGC CUGAUGAG X CGAA AGGUAGCU	719	AGCTACCT T GTCAIGTA	1964
4253	GUUAUACAU CUGAUGAG X CGAA ACAAGGUA	720	TACCTTGT C ATGTATAC	1965
4258	UGACUGUA CUGAUGAG X CGAA ACAUGACA	721	TGICATGT A TACAGTCA	1966
4260	AAUGACUG CUGAUGAG X CGAA AUACAUAGA	722	TCAITGTT A CAGTCATT	1967
4265	GCAUAAAUAU CUGAUGAG X CGAA ACUGUAU	723	TATACAGT C ATTATATGC	1968
4268	UAGGCAUA CUGAUGAG X CGAA AUGACUGU	724	ACAGICAT T TATGCCCTA	1969
4269	UUAGGCAU CUGAUGAG X CGAA AAUGACUG	725	CAGTCATT T ATGCCCTAA	1970
4270	UUUAGGCA CUGAUGAG X CGAA AAAUGACU	726	AGTCATTT A TGCCCTAAA	1971
4276	CCAGGCUU CUGAUGAG X CGAA AGGCAUAA	727	TTATGCCT A AACGCTGG	1972
4289	AAAUGAAU CUGAUGAG X CGAA AUCACCAG	728	CTGGGIGAT T ATTCATTT	1973
4290	UAAAUGAA CUGAUGAG X CGAA AAUCACCA	729	TGGGIGATT A TICATTIA	1974
4292	UUUAAAUG CUGAUGAG X CGAA AAUAUCAC	730	GTGATTAT T CATTTAAA	1975
4293	AUUUAAAUAU CUGAUGAG X CGAA AAUAUACA	731	TGATTATT C ATTAAAT	1976
4296	UUCAUUUA CUGAUGAG X CGAA AUGAAUAA	732	TTATTCAT T TAAATGAA	1977
4297	CUUCAUUU CUGAUGAG X CGAA AAUGAAUA	733	TATTICATT T AAATGAAG	1978
4298	UCUUCAUU CUGAUGAG X CGAA AAAUGAAU	734	ATTICATTT A AATGAAGA	1979
4308	UGAAAUGU CUGAUGAG X CGAA AUCUUCAU	735	ATGAAGAT C ACATTTCA	1980
4313	UGAUUAUGA CUGAUGAG X CGAA AUGUGAUC	736	GATCACAT T TCATACTA	1981
4314	UUGAUUAUG CUGAUGAG X CGAA AAUGUGAU	737	ATCACATT T CATACTAA	1982
4315	GUUGAUAU CUGAUGAG X CGAA AAAUGUGA	738	TCACATTT C ATATCAAC	1983
4318	AAAGGUJUGA CUGAUGAG X CGAA AUGAAAUG	739	CATTTCAT A TCAACTTT	1984
4320	CAAAGUUAU CUGAUGAG X CGAA AAUAGAAA	740	TTTCATAT C AACTTTTG	1985
4325	GGAUACAA CUGAUGAG X CGAA AGUUGAU	741	TATCAACT T TGTATCC	1986
4326	UGGAUACA CUGAUGAG X CGAA AAGUUGAU	742	ATCAACTT T TGTATCCA	1987
4327	GUGGAUAC CUGAUGAG X CGAA AAAGUUGA	743	TCAACTTT T GTATCCAC	1988
4330	ACUGUGGA CUGAUGAG X CGAA ACAAAAGU	744	ACTTTTGT A TCCACAGT	1989
4332	CUACUGUG CUGAUGAG X CGAA AUACAAAA	745	TTTGTAT C CACAGTAG	1990
4339	AUJJUJUGC CUGAUGAG X CGAA ACUGUGGA	746	TCCACAGT A GACAAAT	1991
4348	AUUAAGUGC CUGAUGAG X CGAA AUUUUGUC	747	GACAAAT A GCACTAAT	1992
4354	AUCUGGAU CUGAUGAG X CGAA AGUGCUAU	748	ATAGCACT A ATCCAGAT	1993
4357	GGCAUCUG CUGAUGAG X CGAA AUJAGUGC	749	GCACTAAT C CAGATGCC	1994
4367	UCCAACAA CUGAUGAG X CGAA AGGCAUCU	750	AGATGCCT A TTGTTGGA	1995
4369	UAUCCAAC CUGAUGAG X CGAA AUAGGCAU	751	ATGCCCTAT T GTTGGATA	1996
4372	CAAUAUCC CUGAUGAG X CGAA ACAAUAGG	752	CCTATTGT T GGATATTG	1997
4377	UCAUCAA CUGAUGAG X CGAA AUCCAACA	753	TGTTGGAT A TIGAATGA	1998
4379	UGUCAUUC CUGAUGAG X CGAA AUAUCCAA	754	TTGGATAT T GAATGACA	1999
4394	CUACAUAA CUGAUGAG X CGAA AUUGUCUG	755	CAGACAAT C TTATGTAG	2000
4396	UGCUACAU CUGAUGAG X CGAA AGAUUGUC	756	GACAATCT T ATGTAGCA	2001
4397	UUGCUACAU CUGAUGAG X CGAA AAGAUUGU	757	ACAATCTT A TGTAGCAA	2002
4401	AUCUUUGC CUGAUGAG X CGAA ACAUAAGA	758	TCTTATGT A GCAAAGAT	2003
4410	UCAGGCAU CUGAUGAG X CGAA AUCUUUGC	759	GCAAAGAT T ATGCCCTGA	2004
4411	UUCAGGCA CUGAUGAG X CGAA AAUCUUUG	760	CAAAGATT A TGCCCTGAA	2005
4429	CCCUGAAU CUGAUGAG X CGAA AUUUUOCU	761	AGGAAAAT T ATTCAAGGG	2006
4430	GCCUGAA CUGAUGAG X CGAA AAUUUUCC	762	GGAAAATT A TTCAGGGC	2007

Table IV. Hammerhead Ribozyme and Target Sequences

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4432	CUGCCUG CUGAUGAG X CGAA AUAAUUUU	763	AAAATTAT T CAGGGCAG	2008
4433	GCUGCCU CUGAUGAG X CGAA AUAAUUUU	764	AAATTATT C AGGGCAGC	2009
4443	ACCAAAAU CUGAUGAG X CGAA AGCUGCCC	765	GGGCAGCT A ATTTTGCT	2010
4446	AAAAGCAA CUGAUGAG X CGAA AUUAGCUG	766	CAGCTAAT T TTGCTTTT	2011
4447	UAAAAGCA CUGAUGAG X CGAA AUUAGCU	767	AGCTAATT T TGCTTTTA	2012
4448	GUAAAAGC CUGAUGAG X CGAA AAAUUAGC	768	GCTAATT T GCTTTTAC	2013
4452	UUJUGUA CUGAUGAG X CGAA AGCAAAAU	769	ATTTTGCT T TTACCAAA	2014
4453	UUUUGUA CUGAUGAG X CGAA AAGCAAAA	770	TTTIGCTT T TACCAAAA	2015
4454	AUUUUGGU CUGAUGAG X CGAA AAAGCAAA	771	TTTIGCTT T ACCAAAAT	2016
4455	UAUUUUGG CUGAUGAG X CGAA AAAAGCAA	772	TTGCTTTT A CCAAAATA	2017
4463	ACUACUGA CUGAUGAG X CGAA AUUUUGGU	773	ACCAAAAT A TCAGTAGT	2018
4465	UUACUACU CUGAUGAG X CGAA AUAUUUUG	774	CAAATAT C AGTAGTAA	2019
4469	AAUAUUAC CUGAUGAG X CGAA ACUGAUAU	775	ATATCAGT A GTAATAATT	2020
4472	AAAAAUAU CUGAUGAG X CGAA ACUACUGA	776	TCAGTAGT A ATATTTTT	2021
4475	UCCAAAAA CUGAUGAG X CGAA AUUACUAC	777	GTAGTAAT A TTTTTGGA	2022
4477	UGUCCAAA CUGAUGAG X CGAA AUAUUACU	778	AGTAATAT T TTGGACA	2023
4478	CUGUCCAA CUGAUGAG X CGAA AAUAUUAC	779	GTAATATT T TTGGACAG	2024
4479	ACUGUCCA CUGAUGAG X CGAA AAAUAUUA	780	TAATATT T TGGACAGT	2025
4480	UACUGUCC CUGAUGAG X CGAA AAAAUAUU	781	AATAATT T GGACAGTA	2026
4488	CCAUUAGC CUGAUGAG X CGAA ACUGUCCA	782	TGGACAGT A GCTAATGG	2027
4492	UGACCCAU CUGAUGAG X CGAA AGCUACUG	783	CAGTAGCT A ATGGGTCA	2028
4499	AACCCACU CUGAUGAG X CGAA ACCCAUUA	784	TAATGGGT C AGGGGGTT	2029
4507	UUAAAAAG CUGAUGAG X CGAA ACCCACUG	785	CAGGGGT T CTTTTTAA	2030
4508	AUJAAAAA CUGAUGAG X CGAA AACCCACU	786	AGIGGGTT C TTTTTAAT	2031
4510	ACAUUAAA CUGAUGAG X CGAA AGAACCCA	787	TGGGTTCT T TTAATGTT	2032
4511	AACAUUAA CUGAUGAG X CGAA AGAACCCC	788	GGGGTCTT T TTAATGTT	2033
4512	AAACAUUA CUGAUGAG X CGAA AAAGAAC	789	GGTCTTT T TAATGTTT	2034
4513	UAAACAUU CUGAUGAG X CGAA AAAAGAAC	790	GTCTTTTT T AATGTTA	2035
4514	AUAAACAU CUGAUGAG X CGAA AAAAGAGA	791	TCTTTTT A ATGTTAT	2036
4519	UAAGUAUA CUGAUGAG X CGAA ACAUAAA	792	TTAATGTT T TATACTTA	2037
4520	CUAAGUAU CUGAUGAG X CGAA AACAUAAA	793	TTAATGTT T ATACCTAG	2038
4521	UCUAAGUA CUGAUGAG X CGAA AAACAUAAA	794	TAATGTT T TACCTAGA	2039
4523	AAUCUAAG CUGAUGAG X CGAA AUAAACAU	795	ATGTTAT A CCTAGATT	2040
4526	GAAAAUCU CUGAUGAG X CGAA AGUAUAAA	796	TTTATACT T AGATTTTC	2041
4527	AGAAAACU CUGAUGAG X CGAA AAGUAUAA	797	TTATACCT A GATTTTCT	2042
4531	UAAAAGAA CUGAUGAG X CGAA AUCUAAGU	798	ACTTAGAT T TCTTTTTA	2043
4532	UUAAAAGA CUGAUGAG X CGAA AAUCUAAG	799	CTTAGATT T TCTTTTTAA	2044
4533	UUUAAAAG CUGAUGAG X CGAA AAAUCUAA	800	TTAGATT T CTTTTTAAA	2045
4534	UUUUAAAA CUGAUGAG X CGAA AAAUCUA	801	TAGATT T C TTTTTAAA	2046
4536	UUUUUAAA CUGAUGAG X CGAA AGAAAAAC	802	GATTTCT T TTAAAAAA	2047
4537	UUUUUUUA CUGAUGAG X CGAA AAGAAAAAU	803	ATTTTCTT T TAAAAAAA	2048
4538	AUUUUUUU CUGAUGAG X CGAA AAAGAAAA	804	TTTCTTT T AAAAAAAT	2049
4539	AAUUUUUU CUGAUGAG X CGAA AAAAGAAA	805	TTTCTTT T A AAAAATT	2050
4547	UUUAIUUU CUGAUGAG X CGAA AUUUUUUU	806	AAAAAAAT T AAAATAAA	2051
4548	UUUUAUUU CUGAUGAG X CGAA AAUUUUUU	807	AAAAAAATT A AAATAAAA	2052

Table IV. Hammerhead Ribozyme and Target Sequences

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4553	UUUUGUU CUGAUGAG X CGAA AUUUUAU	808	ATTAATAAAT A AAACAAAAA	2053
4567	GUCCUAGA CUGAUGAG X CGAA AUUUUUU	809	AAAAAAAT T TCTAGGAC	2054
4568	AGUCUAG CUGAUGAG X CGAA AUUUUUU	810	AAAAAATT T CTAGGACT	2055
4569	UAGUCCUA CUGAUGAG X CGAA AAAUUUU	811	AAAATTTC C TAGGACTA	2056
4571	UCUAGUCC CUGAUGAG X CGAA AGAAAUU	812	AAATTTCT A GGACTAGA	2057
4577	ACAUCGUC CUGAUGAG X CGAA AGUCUAG	813	CTAGGACT A GAQGATGT	2058
4586	GCUGGUAU CUGAUGAG X CGAA ACAUCGUC	814	GACGATGT A ATACCAGC	2059
4589	UUAGCUGG CUGAUGAG X CGAA AUUACAU	815	GATGTAAT A CCAGCTAA	2060
4596	UUUUGCUU CUGAUGAG X CGAA AGCUGGUA	816	TACCAAGCT A AAQCCAAA	2061
4609	CACUGUAU CUGAUGAG X CGAA AUUGUUUG	817	CAAACAAT T ATACAGTG	2062
4610	CCACUGUA CUGAUGAG X CGAA AAUJGUUU	818	AAACAATT A TACAGTGG	2063
4612	UCCCACUG CUGAUGAG X CGAA AUAAAUGU	819	ACAATTAT A CAGTGGAA	2064
4624	UAAUGUAA CUGAUGAG X CGAA ACCUCCA	820	TGGAAGGT T TTACATTA	2065
4625	AUAAUGUA CUGAUGAG X CGAA AACCUUCC	821	GGAAGGTT T TACATTAT	2066
4626	AAUAAUGU CUGAUGAG X CGAA AAACCUUC	822	GAAGGTTT T ACATTATT	2067
4627	GAUAAAUG CUGAUGAG X CGAA AAAACCUU	823	AAGGTTTT A CATTATTC	2068
4631	GGAUAGAU CUGAUGAG X CGAA AUGAAAA	824	TTTTACAT T ATTICATCC	2069
4632	UGGAUGAA CUGAUGAG X CGAA AAUGAAAA	825	TTTACATT A TICATCCA	2070
4634	AUUGGAUG CUGAUGAG X CGAA AUAAAUGA	826	TACATTAT T CATCCAAT	2071
4635	CAUUGGAU CUGAUGAG X CGAA AAUAAUGU	827	ACATTATT C ATCCAATG	2072
4638	ACACAUUG CUGAUGAG X CGAA AUGAAUAA	828	TTATICAT C CAATGTGT	2073
4647	UGAAUAGA CUGAUGAG X CGAA ACACAUUG	829	CAATGTGT T TCTATTCA	2074
4648	AUGAAUAG CUGAUGAG X CGAA AACACAUU	830	AATGIGIT T CTATTCTAT	2075
4649	CAUGAAUA CUGAUGAG X CGAA AAACACAU	831	ATGIGTTT C TATTCTATG	2076
4651	AAACAUGA CUGAUGAG X CGAA AGAAAACAC	832	GIGTTCT A TICATGTT	2077
4653	UUAACAUG CUGAUGAG X CGAA AUAGAAC	833	GTTCTAT T CATGTTAA	2078
4654	CUUAACAU CUGAUGAG X CGAA AAUAGAAA	834	TTTCTATT C ATGTTAAG	2079
4659	AGUAUCUU CUGAUGAG X CGAA ACAUGAAU	835	ATTICATGT T AAGATACT	2080
4660	UAGUAUCU CUGAUGAG X CGAA AACAUAGAA	836	TTCATGTT A AGATACTA	2081
4665	UGUAGUAG CUGAUGAG X CGAA AUCUUAAC	837	GTAAAGAT A CTACTACA	2082
4668	AAAUGUAG CUGAUGAG X CGAA AGUAUCUU	838	AAGATACT A CTACATT	2083
4671	UUCAAAUG CUGAUGAG X CGAA AGUAGUAU	839	ATACTACT A CATTGAA	2084
4675	CCACUUCU CUGAUGAG X CGAA AUGUAGUA	840	TACTACAT T TGAAGTGG	2085
4676	CCCACUUC CUGAUGAG X CGAA AAUGUAGU	841	ACTACATT T GAAGTGGG	2086
4695	AAUCAUCU CUGAUGAG X CGAA AGUUCUC	842	GAGAACAT C AGATGATT	2087
4703	AAACAUUUC CUGAUGAG X CGAA AUCAUUCG	843	CAGATGAT T GAAATGTT	2088
4711	CCUGGGCG CUGAUGAG X CGAA ACAUUUCA	844	TGAAATGT T CGCCCCAGG	2089
4712	CCCUGGGC CUGAUGAG X CGAA AACAUUUC	845	GAAATGTT C GCCCCAGG	2090
4723	UUGCUGGA CUGAUGAG X CGAA ACCCCUGG	846	CCAGGGGT C TCCAGCAA	2091
4725	AGUUGCUG CUGAUGAG X CGAA AGACCCCCU	847	AGGGGTCT C CAQCAACT	2092
4734	GAUUCCCA CUGAUGAG X CGAA AGUUGCUG	848	CAGCAACT T TGGAATTC	2093
4735	AGAUUUCC CUGAUGAG X CGAA AAGUUGCU	849	AGCAACTT T CGAAATCT	2094
4742	UACAAAGA CUGAUGAG X CGAA AUUCCAA	850	TTGGAAAT C TCTTGTGA	2095
4744	AAUACAAA CUGAUGAG X CGAA AGAUUUCC	851	GGAAATCT C TTTGTATT	2096
4746	AAAUAACA CUGAUGAG X CGAA AGAGAUUU	852	AAATCTCT T TGTATT	2097

Table IV. Nucleotide Sequences

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4747	AAAAAUAC CUGAUGAG X CGAA AAGAGAUU	853	AATCCTT T GTATTTTT	2098
4750	AGUAAAAA CUGAUGAG X CGAA ACAAAGAG	854	CTCTTGT A TTTTTACT	2099
4752	CAAGUAAA CUGAUGAG X CGAA AUACAAAG	855	CTTGTAT T TTACTTG	2100
4753	UCAAGUAA CUGAUGAG X CGAA AAUACAAA	856	TTIGTATT T TTACTTGA	2101
4754	UUCAAGUA CUGAUGAG X CGAA AAAUACAA	857	TTGTATTT T TACTTGA	2102
4755	CUUCAAGU CUGAUGAG X CGAA AAAAUACA	858	TGTATTT T ACTTGAAG	2103
4756	ACUUCAAG CUGAUGAG X CGAA AAAAUAC	859	GTATTTTT A CTIGAAGT	2104
4759	GGCACUUC CUGAUGAG X CGAA AGUAAAAA	860	TTTTTACT T GAAGTGCC	2105
4771	CUGUCCAU CUGAUGAG X CGAA AGUGGCAC	861	GTGCCACT A ATGGACAG	2106
4785	CCAGAAAA CUGAUGAG X CGAA AUCUGGUG	862	CAGCAGAT A TTTCTTGG	2107
4787	AGCCAGAA CUGAUGAG X CGAA AUACUGC	863	GCAGATAT T TTCTGGCT	2108
4788	CAGCCAGA CUGAUGAG X CGAA AAUACUG	864	CAGATATT T TCTGGCTG	2109
4789	UCAGCCAG CUGAUGAG X CGAA AAAUAUCU	865	AGATATTT T CTGGCTGA	2110
4790	AUCAGCCA CUGAUGAG X CGAA AAAUAUC	866	GATATTTT C TGGCTGAT	2111
4801	CCAAUACC CUGAUGAG X CGAA ACAUCAGC	867	GCTGATGT T GGTATTGG	2112
4805	ACACCCAA CUGAUGAG X CGAA ACCAACAU	868	ATGTTGGT A TTGGGTGT	2113
4807	CUACACCC CUGAUGAG X CGAA AUACCAAC	869	GTGGTAT T GGGGTGAG	2114
4814	CAUGUCCC CUGAUGAG X CGAA ACACCCAA	870	TTGGGIGT A GGAACATG	2115
4825	UUUUUUUA CUGAUGAG X CGAA AUCAUGUU	871	AACATGAT T TAAAAAAA	2116
4826	UUUUUUUU CUGAUGAG X CGAA AAUCAUG	872	ACATGATT T TAAAAAAA	2117
4827	UUUUUUUU CUGAUGAG X CGAA AAAUCAUG	873	CATGATT T TAAAAAAA	2118
4839	AGAGGCAA CUGAUGAG X CGAA AGUUUUUU	874	AAAAAACT C TTGCTCT	2119
4841	GCAGAGGC CUGAUGAG X CGAA AGAGUUUU	875	AAAACCT T GCCTCTGC	2120
4846	GGAAAGCA CUGAUGAG X CGAA AGGCAAGA	876	TCTTGCT C TGCTTTCC	2121
4851	GUCCCCGG CUGAUGAG X CGAA AGCAGAGG	877	CCCTCTGT T TCCCCCAC	2122
4852	AGUGGGGG CUGAUGAG X CGAA AAGCAGAG	878	CTCTGCTT T CCCCCACT	2123
4853	GAGUGGGG CUGAUGAG X CGAA AAAGCAGA	879	TCTGCTTT C CCCCCACTC	2124
4861	UUGCCUCA CUGAUGAG X CGAA AGUGGGGG	880	CCCCCACT C TGAGGCAA	2125
4872	UACAUUUU CUGAUGAG X CGAA ACUUGCCU	881	AGGAAGT T AAAATGTA	2126
4873	UUACAUUU CUGAUGAG X CGAA AACUUGCC	882	GGCAAGTT A AAATGTA	2127
4880	ACAUCUUU CUGAUGAG X CGAA ACAUUUUA	883	TAAAATGT A AAAGATGT	2128
4892	CCCAGAU A CUGAUGAG X CGAA AUCACAU	884	GATGIGAT T TATCTGGG	2129
4893	CCCCAGAU CUGAUGAG X CGAA AAUCACAU	885	ATGIGATT T ATCTGGGG	2130
4894	CCCCCAGA CUGAUGAG X CGAA AAAUCACA	886	TGTGATTT A TCTGGGGG	2131
4896	GCCCCCCA CUGAUGAG X CGAA AUAAAUC	887	TGATTTAT C TGGGGGGC	2132
4906	CCAUACCU CUGAUGAG X CGAA AGCCCCCC	888	GGGGGGCT C AGGTATGG	2133
4911	CCCCACCA CUGAUGAG X CGAA ACCUGAGC	889	GCTCAGGT A TGGTGGGG	2134
4928	GAUCCUG CUGAUGAG X CGAA AUCCACUU	890	AAGTGGAT T CAGGAATC	2135
4929	AGAUUCCU CUGAUGAG X CGAA AAUCCACU	891	AGTGGATT C AGGAATCT	2136
4936	AUUCCCCA CUGAUGAG X CGAA AUUCCUGA	892	TCAGGAAT C TGGGAAT	2137
4952	UCUUAAUA CUGAUGAG X CGAA AUUJGCCA	893	TGGCAAAT A TATTAAGA	2138
4954	CUUCUUA CUGAUGAG X CGAA AUAUUUGC	894	GCAAATAT A TTAAGAAG	2139
4956	CUCUUCUU CUGAUGAG X CGAA AUAUAUUU	895	AAATATAT T AAGAAGAG	2140
4957	ACUCUUCU CUGAUGAG X CGAA AAUUAUJJ	896	AATATATT A AGAAGAGT	2141
4966	ACUUUCAA CUGAUGAG X CGAA ACUCUUCU	897	AGAAGAGT A TTGAAAGT	2142

Table IV. Nucleotide Sequences of Enzyme and Target Sequences

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4968	AUACUUUC CUGAUGAG X CGAA AUACUUU	898	AAGAGTAT T GAAAGTAT	2143
4975	CCUCCAAA CUGAUGAG X CGAA ACUUCAA	899	TTGAAAGT A TTGGAGG	2144
4977	UCCUCCA CUGAUGAG X CGAA AUACUUU	900	GAAAGTAT T TGGAGGAA	2145
4978	UUCCUCC CUGAUGAG X CGAA AAUACUUU	901	AAAGTATT T GGAGGAAA	2146
4992	CCAGAAUU CUGAUGAG X CGAA ACCAUUU	902	AAAATGGT T AATTCTGG	2147
4993	CCCAGAAU CUGAUGAG X CGAA AACCAUUU	903	AAATGGTT A ATTCCTGG	2148
4996	ACACCCAG CUGAUGAG X CGAA AUUAACCA	904	TGGTTAAT T CTGGGTGT	2149
4997	CACACCCA CUGAUGAG X CGAA AAUUAACC	905	GGTTAATT C TGGGIGIG	2150
5015	CUCUACUG CUGAUGAG X CGAA ACCUJGU	906	ACCAAGGT T CAGTAGAG	2151
5016	ACUCUACU CUGAUGAG X CGAA AACCUJGG	907	CCAAGGTT C AGTAGAGT	2152
5020	GUGGACUC CUGAUGAG X CGAA ACUGAAC	908	GGTTCACT A GAGTCCAC	2153
5025	CAGAAGUG CUGAUGAG X CGAA ACUCUACU	909	AGTAGAGT C CACTCTTG	2154
5030	CAGGGCAG CUGAUGAG X CGAA AGUGGACU	910	AGTCACCT T CTGCCCTGG	2155
5031	CCAGGGCA CUGAUGAG X CGAA AAGUGGAC	911	GTCCACTT C TGCCCTGG	2156
5051	AGCUAGUU CUGAUGAG X CGAA AUUUGUGG	912	CCACAAAT C AACTAGCT	2157
5056	AAUUGGAG CUGAUGAG X CGAA AGUJGALU	913	AATCAACT A GCTCCATT	2158
5060	UGUAAAUG CUGAUGAG X CGAA AGCUAGUU	914	AACTAGCT C CATTACCA	2159
5064	UGGCUGUA CUGAUGAG X CGAA AUGGACCU	915	AGCTCCAT T TACAGCCA	2160
5065	AUGGCUGU CUGAUGAG X CGAA AAUUGGAGC	916	GCTCCATT T ACAGCCAT	2161
5066	AAUUGCUG CUGAUGAG X CGAA AAAUUGGAG	917	CTCCATT T CAAGCATT	2162
5074	AUUUJAGA CUGAUGAG X CGAA AUGGCGU	918	ACAGCCAT T TCTAAAAT	2163
5075	CAUJJUAG CUGAUGAG X CGAA AAUUGGUG	919	CAGCCATT T CTAAAATG	2164
5076	CCAUUUUA CUGAUGAG X CGAA AAAUGCCU	920	AGCCATT T CAAAAATGG	2165
5078	UGCCAUUU CUGAUGAG X CGAA AGAAAUGG	921	CCATTCT A AAATGGCA	2166
5090	UAGAACUG CUGAUGAG X CGAA AGCUGCCA	922	TGGCAGCT T CAGTCTTA	2167
5091	CUAGAACU CUGAUGAG X CGAA AAGCUGCC	923	GGCAGCTT C AGTCTCTAG	2168
5095	UUCUCUAG CUGAUGAG X CGAA ACUGAAC	924	GCTTCAGT T CTAGAGAA	2169
5096	CUUCUCUA CUGAUGAG X CGAA AACUGAAG	925	CTTCAGTT C TAGAGAAG	2170
5098	UUCUUCUC CUGAUGAG X CGAA AGAACUGA	926	TCAGTCT A GAGAAGAA	2171
5117	UUACUGCU CUGAUGAG X CGAA AUGUJGUU	927	AACAAACAT C AGCAGTAA	2172
5124	AUGGACUU CUGAUGAG X CGAA ACUGCGA	928	TCAGCAGT A AAGTCCAT	2173
5129	AUUCCAU CUGAUGAG X CGAA ACUUJUACU	929	AGTAAAGT C CATGGAAT	2174
5138	CCACUAGC CUGAUGAG X CGAA AUUCCAUG	930	CATGGAAT A GCTAGTGG	2175
5142	CAGACCAC CUGAUGAG X CGAA AGCUAUUC	931	GAATAGCT A GTGGCTTG	2176
5148	GAAACACA CUGAUGAG X CGAA ACCACUAG	932	CTAGTGGT C TGTGTTTC	2177
5154	CGAAAAGA CUGAUGAG X CGAA ACACAGAC	933	GTCTGTGT T TCTTTTCG	2178
5155	GCGAAAAG CUGAUGAG X CGAA AACACAGA	934	TCTGTGTT T CTTTCGCG	2179
5156	GGCGAAAA CUGAUGAG X CGAA AAACACAG	935	CTGTGTTT C TTTTCGCC	2180
5158	AUGGCAGA CUGAUGAG X CGAA AGAAACAC	936	GTGTTCT T TTGCCCCAT	2181
5159	AAUUGCGA CUGAUGAG X CGAA AAGAAACA	937	TGTTCTTT T TCGCCATT	2182
5160	CAAUJGGG CUGAUGAG X CGAA AAAGAAAC	938	GTTCCTTT T CGCCATTG	2183
5161	GCAAUGGC CUGAUGAG X CGAA AAAAGAAA	939	TTTCCTTT C GCCATTGC	2184
5167	AGCUAGGC CUGAUGAG X CGAA AUGGCGAA	940	TTGCCCCAT T GCCTAGCT	2185
5172	CGGCAAGC CUGAUGAG X CGAA AGGCAAUG	941	CATTGCCCT A GCTTGCGG	2186
5176	AUJACGGC CUGAUGAG X CGAA ACCUAGGC	942	GCCTAGCT T GCGGTAAT	2187

Table IV. Hammerhead Ribozyme and Target Sequences

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5182	AGAAUCAU CUGAUGAG X CGAA ACGGCAAG	943	CTTGGCGT A ATGATTCT	2188
5188	CAUUAUAG CUGAUGAG X CGAA AUCAUUAAC	944	GTAATGAT T CTATAATG	2189
5189	GCAUUAUA CUGAUGAG X CGAA AAUCAUUA	945	TAATGATT C TATAATGC	2190
5191	UGGCAUUA CUGAUGAG X CGAA AGAAUCAU	946	ATGATTCT A TAATGCCA	2191
5193	GAUGGCAU CUGAUGAG X CGAA AUAGAAC	947	GATTCTAT A ATGCCATC	2192
5201	UGCUGCAU CUGAUGAG X CGAA AUGGCAUU	948	AATGCCAT C ATGCAGCA	2193
5212	CCUCUCAU CUGAUGAG X CGAA AUUGCUGC	949	GCAGCAAT T ATGAGAGG	2194
5213	GCCUCUCA CUGAUGAG X CGAA AAUUGCUG	950	CAGCAATT A TGAGAGGC	2195
5223	GGAUGACC CUGAUGAG X CGAA AGCCUCUC	951	GAGAGGCT A GGTCAATCC	2196
5227	CUUUGGAU CUGAUGAG X CGAA ACCUAGCC	952	GGCTAGGT C ATCCAAG	2197
5230	UCUCUUUG CUGAUGAG X CGAA AUGACCIA	953	TAGGTICAT C CAAAGAGA	2198
5246	UACAUJUGA CUGAUGAG X CGAA AGGGUCUU	954	AAGACOCT A TCAATGTA	2199
5248	CCUACAUU CUGAUGAG X CGAA AUAGGGUC	955	GACCTAT C AATGTAGG	2200
5254	UUGCAACC CUGAUGAG X CGAA ACAUJUGAU	956	ATCAAATGT A GGTTGCAA	2201
5258	GAUUUUGC CUGAUGAG X CGAA ACCUACAU	957	ATGTAGGT T GCAAAATC	2202
5266	AGGGGUUA CUGAUGAG X CGAA AUUUUGCA	958	TGAAAAT C TAACCCCT	2203
5268	UUAGGGGU CUGAUGAG X CGAA AGAUUUUG	959	CAAAATCT A ACCCCTAA	2204
5275	CACUUCU CUGAUGAG X CGAA AGGGGUUA	960	TAACCCCT A AGGAAGTG	2205
5288	AAAUCAAA CUGAUGAG X CGAA ACUGCACU	961	AGTGCAGT C TTGATTT	2206
5290	UCAAUAUCA CUGAUGAG X CGAA AGACUGCA	962	TGCACTCT T TGATTGTA	2207
5291	AUCAAUAUC CUGAUGAG X CGAA AAGACUGC	963	GCAGTCCT T GATTGAT	2208
5295	GGAAAUCA CUGAUGAG X CGAA AUCAAAGA	964	TCITTGAT T TGATTICC	2209
5296	GGGAAAU CUGAUGAG X CGAA AAUCAAAG	965	CTTIGATT T GATTICCC	2210
5300	ACUAGGG CUGAUGAG X CGAA AUCAAAC	966	GATTGAT T TCCCTAGT	2211
5301	UACUAGGG CUGAUGAG X CGAA AAUCAAAC	967	ATTTGATT T CCCTAGTA	2212
5302	UUACUAGG CUGAUGAG X CGAA AAAUCAAA	968	TTTGTATT C CCTAGTAA	2213
5306	AAGGUUAC CUGAUGAG X CGAA AGGGAAAU	969	ATTTCCCT A GTAACCTT	2214
5309	UGCAAGGU CUGAUGAG X CGAA ACUAGGG	970	TCCCTAGT A ACCTTGCA	2215
5314	AUAUCUGC CUGAUGAG X CGAA AGGUUACU	971	AGTAACCT T GCAGATAT	2216
5321	GUUAAACA CUGAUGAG X CGAA AUCUGCAA	972	TTGCAGAT A TGTTTAAC	2217
5325	CUUUGGUUA CUGAUGAG X CGAA ACAUAUC	973	AGATATGT T TAACCAAG	2218
5326	GCUUUGGU CUGAUGAG X CGAA AACAUUAUC	974	GATATGTT T AACCAAGC	2219
5327	GGCUUUGGU CUGAUGAG X CGAA AAACAUUAU	975	ATATGTTT A ACCAAGCC	2220
5338	GCAUUGGC CUGAUGAG X CGAA AUGGUUG	976	CAAGCCAT A GCCCCATGC	2221
5349	GCCCCUAA CUGAUGAG X CGAA AGGCAUG	977	CCATGCCCT T TTGAGGGC	2222
5350	AGCCCUCU CUGAUGAG X CGAA AAGGCAUG	978	CATGCCCTT T TGACGGCT	2223
5351	CAGCCCCU CUGAUGAG X CGAA AAAGGCAU	979	ATGCCCTTT T GAGGGCTG	2224
5367	AAGUCCCCU CUGAUGAG X CGAA AUUUGUUC	980	GAACAAAT A AGGGACTT	2225
5375	UUAUUCAGU CUGAUGAG X CGAA AGUCCCCU	981	AAGGGACT T ACTGATAAA	2226
5376	AUUAUCAG CUGAUGAG X CGAA AAGUCCCCU	982	AGGGACTT A CTGATAAT	2227
5382	AAGUAAA CUGAUGAG X CGAA AUCAGUAA	983	TTACTGAT A ATTTACTT	2228
5385	CAAAAGUA CUGAUGAG X CGAA AUUAUCAG	984	CTGATAAT T TACTTTIG	2229
5386	UCAAAAGU CUGAUGAG X CGAA AAUUAUCA	985	TGATAATT T ACTTTTGA	2230
5387	AUCAAAAG CUGAUGAG X CGAA AAAUUAUC	986	GATAATT T CTTTTGAT	2231
5390	GUGAUCAA CUGAUGAG X CGAA AGUAAAUU	987	AATTACT T TTGATCAC	2232

Table IV. Hammerhead Ribozyme and Target Sequences

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5391	UGUGAUCA CUGAUGAG X CGAA AAGUAAA	988	ATTTACIT T TGATCACA	2233
5392	AUGUGAUC CUGAUGAG X CGAA AAAGUAAA	989	TTTACTTT T GATCACAT	2234
5396	CUUAAUGU CUGAUGAG X CGAA AUCAAAAG	990	CTTTTGAT C ACATTAAG	2235
5401	AACACCUU CUGAUGAG X CGAA AUGUGAUC	991	GATCACAT T AAGGTGTT	2236
5402	GAACACCU CUGAUGAG X CGAA AAUGUGAU	992	ATCACATT A AGGIGTIC	2237
5409	AAGGUGAG CUGAUGAG X CGAA ACACCUUA	993	TAAGGTGT T CTCACCTT	2238
5410	CAAGGUGA CUGAUGAG X CGAA AACACCUU	994	AAGGTGTT C TCACCTTG	2239
5412	UUCAAGGU CUGAUGAG X CGAA AGAACACC	995	GGIGTTCT C ACCTTGAA	2240
5417	AAGAUUUC CUGAUGAG X CGAA AGGUGAGA	996	TCTCACCT T GAAATCTT	2241
5423	GUGUAUAA CUGAUGAG X CGAA AUUUAAG	997	CTTGAAT C TTATACAC	2242
5425	CAGUGUAI CUGAUGAG X CGAA AGAUUUC	998	TGAAATCT T ATACACTG	2243
5426	UCAGUGUA CUGAUGAG X CGAA AAGAUUUC	999	GAAATCTT A TACACTGA	2244
5428	UUUCAGUG CUGAUGAG X CGAA AUAGAUU	1000	AAITCTAT A CACTGAAA	2245
5444	CCUAAAUC CUGAUGAG X CGAA AUGGCCAU	1001	ATGGCCAT T GATTAGG	2246
5448	GUGGCCUA CUGAUGAG X CGAA AUCAAUGG	1002	CCATTGAT T TAGGCCAC	2247
5449	AGUGGCCU CUGAUGAG X CGAA AAUCAALG	1003	CATTGATT T AGGCCACT	2248
5450	CAGUGGCC CUGAUGAG X CGAA AAAUCAAU	1004	ATTGATTT A GGCCACTG	2249
5462	AGUACUCU CUGAUGAG X CGAA AGCCAGUG	1005	CACTGGCT T AGAGTACT	2250
5463	GAGUACUC CUGAUGAG X CGAA AAGCCAGU	1006	ACIGGCCT A GAGTACTC	2251
5468	GGAAGGGAG CUGAUGAG X CGAA ACUCUAAG	1007	CTTAGAGT A CTCCCTICC	2252
5471	AGGGGAAG CUGAUGAG X CGAA AGUACUCU	1008	AGAGTACT C CTCCCCCT	2253
5474	UGCAGGGG CUGAUGAG X CGAA AGGAGUAC	1009	GTACTCCT T CCCCTGCA	2254
5475	AUGCAGGG CUGAUGAG X CGAA AAGGAGUA	1010	TACTCCTT C CCCTGCTAT	2255
5493	GUAUUUGU CUGAUGAG X CGAA AUCAGUGU	1011	ACACTGAT T ACAAAATAC	2256
5494	AGUAIUUG CUGAUGAG X CGAA AAUCAGUG	1012	CACTGATT A CAAATACT	2257
5500	UAGGAAAG CUGAUGAG X CGAA AUUUGUAA	1013	TTACAAAT A CTTTCCTA	2258
5503	GAUJAGGA CUGAUGAG X CGAA AGUAIUUG	1014	CAAATACT T TCCTTATIC	2259
5504	UGAAUJAGG CUGAUGAG X CGAA AAGUAUU	1015	AAATACTT T CCTATTICA	2260
5505	AUGAAUAG CUGAUGAG X CGAA AAAGUAU	1016	AATACTTT C CTATTICAT	2261
5508	AGUAUGAA CUGAUGAG X CGAA AGGAAAGU	1017	ACTTTCCT A TTCATACT	2262
5510	AAAGUAUG CUGAUGAG X CGAA AUAGGAAA	1018	TTTCCCTAT T CATACTTT	2263
5511	GAAAGUAU CUGAUGAG X CGAA AAUAGGAA	1019	TTCCCTATT C ATACTTIC	2264
5514	UUGGAAAG CUGAUGAG X CGAA AUGAAUAG	1020	CTATTICAT A CTTTCCAA	2265
5517	UAAUUGGA CUGAUGAG X CGAA AGUAUGAA	1021	TTICATACT T TCCAATTAA	2266
5518	AUAAUUGG CUGAUGAG X CGAA AAGUAUGA	1022	TCATACCT T CCAATTAT	2267
5519	CAUAAUUG CUGAUGAG X CGAA AAAGUAUG	1023	CATACTTT C CAATTATG	2268
5524	CAUCUCAU CUGAUGAG X CGAA AUJGGAAA	1024	TTTCCAAT T ATGAGATG	2269
5525	CCAUCUCA CUGAUGAG X CGAA AAUJGGAA	1025	TTICCAATT A TGAGATGG	2270
5543	ACUCCCAG CUGAUGAG X CGAA ACCCACAG	1026	CTGIGGGT A CTGGGAGT	2271
5555	GUGUJAGU CUGAUGAG X CGAA AUCACUCC	1027	GGAGTGTAT C ACTAACAC	2272
5559	UAUGGUGU CUGAUGAG X CGAA AGUGAUCA	1028	TGATCACT A ACACCATA	2273
5567	GACAUUAC CUGAUGAG X CGAA AUGGUGU	1029	AACACCAT A GTAATGTC	2274
5570	UUAGACAU CUGAUGAG X CGAA ACUAUGGU	1030	ACCATAGT A ATGICCTAA	2275
5575	GAUUAUUA CUGAUGAG X CGAA ACAUUAUC	1031	AGTAATGT C TAATATTIC	2276
5577	GUGAAUUA CUGAUGAG X CGAA AGACAUUA	1032	TAATGCT A ATATTCAC	2277

Table IV. Leaderhead Prezyme and Target Sequences

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5580	CCUGUGAA CUGAUGAG X CGAA AUUAGACA	1033	TGICTAAT A TICACAGG	2278
5582	UGCCUGUG CUGAUGAG X CGAA AUAUUAGA	1034	TCTAATAT T CACAGGCA	2279
5583	CUGCCUGU CUGAUGAG X CGAA AAUAUUAG	1035	CTAATATT C ACAGGCAG	2280
5594	CCCAAGCA CUGAUGAG X CGAA AUCUGCCU	1036	AGGCAGAT C TGCTTGGG	2281
5599	GCUUCCCC CUGAUGAG X CGAA AGCAGAUC	1037	GATCTGCT T GGGGAACC	2282
5609	CACAUAAAC CUGAUGAG X CGAA AGCUUCCC	1038	GGGAAGCT A GTTATGIG	2283
5612	UUUCACAU CUGAUGAG X CGAA ACUAGCUU	1039	AAGCTAGT T ATGTGAAA	2284
5613	CUUUCACA CUGAUGAG X CGAA AACUAGCU	1040	AGCTAGTT A TGTGAAAG	2285
5628	UAUGACUU CUGAUGAG X CGAA AUUUGCCU	1041	AGGCAAAT A AAGTCATA	2286
5633	UACUGUAU CUGAUGAG X CGAA ACUUUAUU	1042	AATAAAAGT C ATACAGTA	2287
5636	AGCUACUG CUGAUGAG X CGAA AUGACUUU	1043	AAAGTCAT A CAGTAGCT	2288
5641	UUUUGAGC CUGAUGAG X CGAA ACUGUAUG	1044	CATACAGT A GCTAAAAA	2289
5645	UGCCUUUU CUGAUGAG X CGAA AGCUACUG	1045	CAGTAGCT C AAAAGGCA	2290
5659	AAGAGAAU CUGAUGAG X CGAA AUGGUUGC	1046	GCAACCAT A ATTCTCTT	2291
5662	CCAAAGAG CUGAUGAG X CGAA AUUAUGGU	1047	ACCATAAT T CTCTTGG	2292
5663	ACCAAAGA CUGAUGAG X CGAA AAUUAUGG	1048	CCATAATT C TCTTGGT	2293
5665	GCACCAAA CUGAUGAG X CGAA AGAAUUAU	1049	ATAATTCT C TTGGGTGC	2294
5667	UUGCACCA CUGAUGAG X CGAA AGAGAAUU	1050	AATTCTCT T TGGTCAA	2295
5668	CUUGCACC CUGAUGAG X CGAA AAAGAGAAU	1051	ATTCTCTT T GGTCGAAG	2296
5678	GCUCCCAA CUGAUGAG X CGAA ACUUGCAC	1052	GTGCAAGT C TTGGGAGC	2297
5680	ACGCUCCC CUGAUGAG X CGAA AGACUUGC	1053	GCAAGTCT T GGGAGCGT	2298
5692	GUAAUCUA CUGAUGAG X CGAA AUCAAGCU	1054	AGCGTGTAT C TAGATTAC	2299
5694	GUGUAAUC CUGAUGAG X CGAA AGAUACAG	1055	CGTGATCT A GATTACAC	2300
5698	UGCAGUGU CUGAUGAG X CGAA AUCUAGAU	1056	ATCTAGAT T ACACTGCA	2301
5699	GUGGAGUG CUGAUGAG X CGAA AAUCUAGA	1057	TCTAGATT A CACTGCAC	2302
5711	AACUUGGG CUGAUGAG X CGAA AUGGUGCA	1058	TGCACCAT T CCCAAGTT	2303
5712	UAACUUGG CUGAUGAG X CGAA AAUGGUGC	1059	GCACCATC C CCAAGTTA	2304
5719	AGGGGAUU CUGAUGAG X CGAA ACUUGGG	1060	TCCAAGT T AATCCCCT	2305
5720	CAGGGGAU CUGAUGAG X CGAA AACUUGGG	1061	CCCAAGIT A ATCCCCTG	2306
5723	UUUCAGGG CUGAUGAG X CGAA AUJUAACUU	1062	AAGTTAAT C CCCTGAAA	2307
5735	UUGAGAGU CUGAUGAG X CGAA AGUUUUC	1063	TGAAAACT T ACTCTCAA	2308
5736	GUUGAGAG CUGAUGAG X CGAA AAGUUUUC	1064	GAAAACTT A CTCTAAC	2309
5739	CCAGUUGA CUGAUGAG X CGAA AGUAAGU	1065	AACTTACT C TCAACTGG	2310
5741	CUCCAGUU CUGAUGAG X CGAA AGAGUAAG	1066	CTTACTCT C AACTGGAG	2311
5760	UGGGACCA CUGAUGAG X CGAA AGUUCAUU	1067	AATGAACT T TGGTCCCA	2312
5761	UUGGGACC CUGAUGAG X CGAA AAGUUCAU	1068	ATGAACIT T GGTCCTAA	2313
5765	AUAUUUGG CUGAUGAG X CGAA ACCAAAGU	1069	ACTTTGGT C CCAAATAT	2314
5772	AAGAUGGA CUGAUGAG X CGAA AUUUGGGA	1070	TCCCAAAT A TCCATCTT	2315
5774	AAAAGAUG CUGAUGAG X CGAA AUAUUUGG	1071	CCAAATAT C CACTTTT	2316
5778	ACUGAAAA CUGAUGAG X CGAA AUGGAUAU	1072	ATATCCAT C TTTTCAGT	2317
5780	CUACUGAA CUGAUGAG X CGAA AGAUGGAU	1073	ATCCATCT T TTCAGTAG	2318
5781	GCUACUGA CUGAUGAG X CGAA AAGAUGGA	1074	TCCATCTT T TCAGTAGC	2319
5782	CGCUACUG CUGAUGAG X CGAA AAAGAUGG	1075	CCATCTTT T CAGTAGCG	2320
5783	ACGCUACU CUGAUGAG X CGAA AAAAGAUG	1076	CATCTTT C AGTAGCGT	2321
5787	AUUAACGC CUGAUGAG X CGAA ACUGAAAA	1077	TTTTCAGT A GCGTTAAT	2322

Table IV. Hammerhead Ribozyme and Target Sequences

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5792	GCAUAAU CUGAUGAG X CGAA ACGCUACU	1078	AGTAGCGT T AATTATGC	2323
5793	AGCAUAAU CUGAUGAG X CGAA AACGCUAC	1079	GTAGCGIT A ATTATGCT	2324
5796	CAGAGCAU CUGAUGAG X CGAA AUUAACGC	1080	GCGTTAAT T ATGCTCTG	2325
5797	ACAGAGCA CUGAUGAG X CGAA AAUUAACG	1081	CGTTAAIT A TGCTCTGT	2326
5802	UGGAAACA CUGAUGAG X CGAA AGCAUAAU	1082	ATTATGCT C TGTTTCCA	2327
5806	CAGUUGGA CUGAUGAG X CGAA ACAGAGCA	1083	TGCTCTGT T TCCAACIG	2328
5807	GCAGUUGG CUGAUGAG X CGAA AACAGAGC	1084	GCTCTGTT T CCAACTGC	2329
5808	UGCAGUUG CUGAUGAG X CGAA AAACAGAG	1085	CTCTGTTT C CAACTGCA	2330
5818	GGAAAGGA CUGAUGAG X CGAA AUGCAGU	1086	AACTGCAT T TCCCTTCC	2331
5819	UGGAAAGG CUGAUGAG X CGAA AAUGCAGU	1087	ACTGCATT T CCTTTCCA	2332
5820	UUGGAAAG CUGAUGAG X CGAA AAAUGCAG	1088	CTGCATTT C CTTTCCAA	2333
5823	CAAUUGGA CUGAUGAG X CGAA AGGAAAUG	1089	CATTTCTT T TCCAATIG	2334
5824	UCAAUUJGG CUGAUGAG X CGAA AAGGAAAU	1090	ATTCCTT T CCAATTGA	2335
5825	UUCAAUUG CUGAUGAG X CGAA AAAGGAAA	1091	TTTCCCTT C CAATTGAA	2336
5830	UUUAAUUC CUGAUGAG X CGAA AUUGGAAA	1092	TTTCCAAT T GAATTAAA	2337
5835	CACACUU CUGAUGAG X CGAA AUUCAAU	1093	AATTGAAT T AAAGTGIG	2338
5836	CCACACUU CUGAUGAG X CGAA AAUCAAU	1094	ATTGAATT A AAGTGTGG	2339
5848	CUAAAAAC CUGAUGAG X CGAA AGGCCACA	1095	TGIGGCT C GTTTTTAG	2340
5851	UGACUAAA CUGAUGAG X CGAA ACGAGGCC	1096	GGCCTCGT T TTAGTC	2341
5852	AUGACUAA CUGAUGAG X CGAA AACGAGGC	1097	GCCTCGTT T TTAGTCAT	2342
5853	AAUGACUA CUGAUGAG X CGAA AAACGAGG	1098	CCCTCGTT T TAGTCATT	2343
5854	AAAUGACU CUGAUGAG X CGAA AAAACGAG	1099	CTCGTTTT T AGTCATT	2344
5855	UAAAUGAC CUGAUGAG X CGAA AAAAACGA	1100	TCGTTTTT A GTCATTTA	2345
5858	UUUAAA UCGAUGAG X CGAA ACUAAAAA	1101	TTTTTGT C ATTTAAAA	2346
5861	CAAUJUUA CUGAUGAG X CGAA AUGACUAA	1102	TTAGTCAT T TAAAATTG	2347
5862	ACAAUUUU CUGAUGAG X CGAA AAUGACUA	1103	TAGTCATT T AAAATTGT	2348
5863	AACAAUUU CUGAUGAG X CGAA AAAUGACU	1104	AGTCATT T AAATTGTT	2349
5868	UAGAAAAC CUGAUGAG X CGAA AUUUAAAA	1105	TTTAAAT T GTTTCTA	2350
5871	ACUUAGAA CUGAUGAG X CGAA ACAUUUU	1106	AAAATTGT T TTCTAAGT	2351
5872	UACUJAGA CUGAUGAG X CGAA ACAAUUU	1107	AAAATTGT T TCTAAGTA	2352
5873	UUACUJAG CUGAUGAG X CGAA AAACAAU	1108	AATTGTTT T CTAAGTAA	2353
5874	AUUACUUA CUGAUGAG X CGAA AAAACAAU	1109	ATTTGTTT C TAAGTAAT	2354
5876	CAAUJACU CUGAUGAG X CGAA AGAAAACA	1110	TGTTTCT A AGTAATIG	2355
5880	GCAGCAAU CUGAUGAG X CGAA ACUUAGAA	1111	TTCTAAGT A ATTGCTIG	2356
5883	GAGGCAGC CUGAUGAG X CGAA AUJACUUA	1112	TAAGTAAT T GCTGCCCTC	2357
5891	CCAUAJUA CUGAUGAG X CGAA AGGCAGCA	1113	TGCTGCCF C TATTATGG	2358
5893	UGCCAUAA CUGAUGAG X CGAA AGAGGCAG	1114	CTGOCCT A TTATGGCA	2359
5895	AGUGCCAU CUGAUGAG X CGAA AUAGAGGC	1115	GCCTCTAT T ATGGCACT	2360
5896	AAGUGCCA CUGAUGAG X CGAA AAUAGAGG	1116	CCTCTATT A TGGCACTT	2361
5904	CAAAAUUG CUGAUGAG X CGAA AGUGCCAU	1117	ATGGCACT T CAATTTTG	2362
5905	GCAAAAUU CUGAUGAG X CGAA AAGUGCCA	1118	TGGCACTT C AATTTTGC	2363
5909	CAGUGCAA CUGAUGAG X CGAA AUUGAAGU	1119	ACTTCAAT T TTGCACTG	2364
5910	ACAGUGCA CUGAUGAG X CGAA AAUUGAAG	1120	CTTCAATT T TGCACIGT	2365
5911	GACAGUGC CUGAUGAG X CGAA AAAUUGAA	1121	TTCAATT T GCACIGTC	2366
5919	UCUCAAAA CUGAUGAG X CGAA ACAGUGCA	1122	TGGCACIGT C TTTTGGAA	2367

Table IV. Hammerhead Ribozyme and Target Sequences

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5921	AAUCUCAA CUGAUGAG X CGAA AGACAGUG	1123	CACTGCT T TTGAGATT	2368
5922	GAAUCUCA CUGAUGAG X CGAA AAGACAGU	1124	ACTGICIT T TGAGATTIC	2369
5923	UGAAUCUC CUGAUGAG X CGAA AAAGACAG	1125	CTGICTT T GAGATICA	2370
5929	UUUUCUUG CUGAUGAG X CGAA AUUCAAA	1126	TTTGAGAT T CAAGAAAA	2371
5930	UUUUUCUU CUGAUGAG X CGAA AAUCUAA	1127	TTGAGATT C AAGAAAAA	2372
5940	UGAAUJAGA CUGAUGAG X CGAA AUUUUUCU	1128	AGAAAAAT T TCTATTCA	2373
5941	AUGAAUAG CUGAUGAG X CGAA AUUUUUC	1129	GAAAAATT T CTATTCCAT	2374
5942	AAUGAAUA CUGAUGAG X CGAA AAAUUUUJ	1130	AAAAATTTC C TATICATT	2375
5944	AAA AUGAA CUGAUGAG X CGAA AGAAAUU	1131	AAATTCT A TTCAATTTC	2376
5946	AAAAAAUG CUGAUGAG X CGAA AUAGAAAU	1132	ATTTCAT T CATTTTTT	2377
5947	AAAAAAAU CUGAUGAG X CGAA AAUAGAAA	1133	TTTCTATT C ATTTTTTT	2378
5950	UGCAAAAA CUGAUGAG X CGAA AUGAAUAG	1134	CTATTCCAT T TTTTGCA	2379
5951	AUGAAAAA CUGAUGAG X CGAA AAUGAAUA	1135	TATTCAATT T TTTGCACT	2380
5952	GAUGCAAA CUGAUGAG X CGAA AAAUGAAU	1136	ATTCAATT T TTGCACTC	2381
5953	GGAU GCAA CUGAUGAG X CGAA AAAAUGAA	1137	TTCATTTT T TTGCACTCC	2382
5954	UGGAUGCA CUGAUGAG X CGAA AAAAAUGA	1138	TCATTTTT T TGCACTCCA	2383
5955	UUGGAUGC CUGAUGAG X CGAA AAAAAAUG	1139	CATTTTTT T GCATCCAA	2384
5960	CACAAUJUG CUGAUGAG X CGAA AUGCAAAA	1140	TTTGCAT C CAATTGIG	2385
5965	UCAGGCAC CUGAUGAG X CGAA AUUGGAUG	1141	CATCCAAT T GIGCTGA	2386
5977	UAUUUUA CUGAUGAG X CGAA AGUUCAGG	1142	CCTGAAC T TTAAAATA	2387
5978	AUAUUUUA CUGAUGAG X CGAA AAGUUCAG	1143	CTGAACIT T TAAAATAT	2388
5979	CAUAUUU CUGAUGAG X CGAA AAAGUUCA	1144	TGAACTTT T AAAATATG	2389
5980	ACAUAUUU CUGAUGAG X CGAA AAAAGUUC	1145	GAACTTTT A AAATAATGT	2390
5985	CAUUUACA CUGAUGAG X CGAA AUUUUAAA	1146	TTTAAAAT A TGIAAATG	2391
5989	GCAGCAUU CUGAUGAG X CGAA ACAUAUUU	1147	AAATATGT A AATGCTGC	2392
6003	GGGUUUGG CUGAUGAG X CGAA ACAUGGCA	1148	TGCCATGT T CCAAACCC	2393
6004	UGGGUUUG CUGAUGAG X CGAA AACAUUGC	1149	GCCATGTT C CAAACCCA	2394
6014	ACACUGAC CUGAUGAG X CGAA AUGGUUU	1150	AAACCCAT C GTCACTGT	2395
6017	CACACACU CUGAUGAG X CGAA ACGAUGGG	1151	CCCACGT C AGIGIGIG	2396
6029	CAGCUCUA CUGAUGAG X CGAA ACACACAC	1152	GIGIGIGT T TAGAGCTG	2397
6030	ACAGCUCU CUGAUGAG X CGAA AACACACA	1153	TGIGIGTT T AGAGCTGT	2398
6031	CACAGCUC CUGAUGAG X CGAA AAACACAC	1154	GIGIGITT A GAGCTGIG	2399
6046	GUUGUUUC CUGAUGAG X CGAA AGGGUGCA	1155	TGCACCCCT A GAAACAAC	2400
6057	GGGACAAG CUGAUGAG X CGAA AUGUJGUU	1156	AACAAACAT A CTIGTCCC	2401
6060	CAUGGGAC CUGAUGAG X CGAA AGUAUJGUU	1157	AACATACT T GTCCCCATG	2402
6063	GCUCAUGG CUGAUGAG X CGAA ACAAGUAU	1158	ATACTTGT C CCATGAGC	2403
6095	UGAAUJCA CUGAUGAG X CGAA AGGGGUU	1159	AGACCCCT T TGCACTICA	2404
6096	GUGAAUGC CUGAUGAG X CGAA AAGGGGUC	1160	GACCCCTT T GCATTCAC	2405
6101	UCUCUGUG CUGAUGAG X CGAA AUGCAAAG	1161	CTTTCAT T CACAGAGA	2406
6102	CUCUCUGU CUGAUGAG X CGAA AAUGCAAA	1162	TTTGCATT C ACAGAGAG	2407
6113	UAACCAAU CUGAUGAG X CGAA ACCUCUCU	1163	AGAGAGGT C ATTGGTTA	2408
6116	CUAUJAACC CUGAUGAG X CGAA AUGACCUC	1164	GAGGTCACT T GGTTATAG	2409
6120	GUCUCUAU CUGAUGAG X CGAA ACCAAUGA	1165	TCATTGGT T ATAGAGAC	2410
6121	AGUCUCUA CUGAUGAG X CGAA AACCAAUG	1166	CATTGGTT A TAGAGACT	2411
6123	CAAGUCUC CUGAUGAG X CGAA AUAAACCAA	1167	TTGGTTAT A GAGACTTG	2412

Table IV. Hammerhead Ribozyme and Target Sequences

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6130	AUUAUUC CUGAUGAG X CGAA AGUCUCUA	1168	TAGAGACT T GAATTAAT	2413
6135	CACUUUU CUGAUGAG X CGAA AUUCAAGU	1169	ACTTGAAT T AATAAGTG	2414
6136	UCACUUAU CUGAUGAG X CGAA AAUUCAAG	1170	CTTGAATT A ATAAGTGA	2415
6139	AUGUCACU CUGAUGAG X CGAA AUUAAUUC	1171	GAATTAAT A AGTGACAT	2416
6148	ACUGGCAU CUGAUGAG X CGAA AUGUCACU	1172	AGTGACAT T ATGCCAGT	2417
6149	AACUGGCA CUGAUGAG X CGAA AAUGUCAC	1173	GTCACATT A TGCCAGTT	2418
6157	AGAACAGA CUGAUGAG X CGAA ACUGGCAU	1174	ATGCCAGT T TCIGTCT	2419
6158	GAGAACAG CUGAUGAG X CGAA AACUGGCA	1175	TGCCAGTT T CTGTCCTC	2420
6159	AGAGAACCA CUGAUGAG X CGAA AAACUGGC	1176	GCCAGTTT C TGTCCTCT	2421
6163	UGUGAGAG CUGAUGAG X CGAA ACAGAAC	1177	GTTCCTGT T CTCTCACAC	2422
6164	CUGUGAGA CUGAUGAG X CGAA AACAGAAA	1178	TTTCCTGT C TCTCACAG	2423
6166	ACCUGUGA CUGAUGAG X CGAA AGAACAGA	1179	TCTGTCCT C TCACAGGT	2424
6168	UCACCUGU CUGAUGAG X CGAA AGAGAAC	1180	TGTCCTCT C ACAGGTGA	2425
6178	GCAUUGUU CUGAUGAG X CGAA AUCACCUG	1181	CAGGTGAT A AACAAATGC	2426
6188	UGCACAAA CUGAUGAG X CGAA AGCAUUGU	1182	ACAATGCT T TTGIGCCA	2427
6189	GUGCACAA CUGAUGAG X CGAA AAGCAUUG	1183	CAATGCTT T TTGIGCAC	2428
6190	AGUCCACA CUGAUGAG X CGAA AAAGCAU	1184	AATGCTTT T TGIGCACT	2429
6191	UAGUGCAC CUGAUGAG X CGAA AAAAGCAU	1185	ATGCTTTT T GIGCACTA	2430
6199	AGAGUAUG CUGAUGAG X CGAA AGUGCACA	1186	TGIGCACT A CATACTCT	2431
6203	CUGAAGAG CUGAUGAG X CGAA AUGUAGUG	1187	CACTACAT A CTCTTCAG	2432
6206	ACACUGAA CUGAUGAG X CGAA AGUAUGUA	1188	TACATAC T TTCACTGT	2433
6208	CUACACUG CUGAUGAG X CGAA AGAGUAUG	1189	CATACTCT T CAGIGTAG	2434
6209	UCUACACU CUGAUGAG X CGAA AAGAGUAU	1190	ATACTCTT C AGTGTAGA	2435
6215	AAGAGCUC CUGAUGAG X CGAA ACACUGAA	1191	TTCAGTGT A GAGCTCTT	2436
6221	UAAAACAA CUGAUGAG X CGAA ACCUCUAC	1192	GTAGAGCT C TTGTTTTA	2437
6223	CAUAAAAC CUGAUGAG X CGAA AGAGCUCU	1193	AGAGCTCT T GTTTTAIG	2438
6226	UCCCCAUAA CUGAUGAG X CGAA ACAAGAGC	1194	GCTCTTGT T TTATGGGA	2439
6227	UUCCCCAU CUGAUGAG X CGAA AACAAAGAG	1195	CTCTTGT T TATGGGAA	2440
6228	UUUCCCCAU CUGAUGAG X CGAA AAACAAGA	1196	TCTTGTCT T ATGGGAAA	2441
6229	UUUUCCCCA CUGAUGAG X CGAA AAAACAAG	1197	CTTGTCTT A TGGAAAAA	2442
6242	UGGCAUUU CUGAUGAG X CGAA AGCCUUUU	1198	AAAAGGCT C AAATGCCA	2443
6254	UCAAACAC CUGAUGAG X CGAA AUUUGGCA	1199	TGCCAAAT T GTGTTTGA	2444
6259	AUCCAUCA CUGAUGAG X CGAA ACACAAUJ	1200	AATTGIGT T TGATGGAT	2445
6260	AAUCCAUC CUGAUGAG X CGAA AACACAAU	1201	ATIGIGIT T GATGGATT	2446
6268	GGCAUAUU CUGAUGAG X CGAA AUCCAUCA	1202	TGATGGAT T AATATGCC	2447
6269	GGGCAUAU CUGAUGAG X CGAA AAUCCAU	1203	GATGGATT A ATATGCC	2448
6272	AAAGGGCA CUGAUGAG X CGAA AUUAAUCC	1204	GGATTAAT A TGCCCTTT	2449
6279	AUCGGCAA CUGAUGAG X CGAA AGGGCAUA	1205	TATGCCCT T TTGCGGAT	2450
6280	CAUCGGCA CUGAUGAG X CGAA AAGGGCAU	1206	ATGCCCTT T TGCCGATG	2451
6281	GCAUCGGC CUGAUGAG X CGAA AAAGGGCA	1207	TGCCCTTT T GCCGATGC	2452
6292	AGUAUAG CUGAUGAG X CGAA AUGCAUCG	1208	CGATGCAT A CTATTACT	2453
6295	AUCAGUAA CUGAUGAG X CGAA AGUAUGCA	1209	TGCATACT A TTACTGAT	2454
6297	ACAUCAGU CUGAUGAG X CGAA AUAGUAUG	1210	CATACTAT T ACTGATGT	2455
6298	CACAUCA CUGAUGAG X CGAA AAUAGUAU	1211	ATACTATT A CTGATGIG	2456
6310	ACAAAACC CUGAUGAG X CGAA AGUCACAU	1212	ATGIGACT C GGTTTGT	2457

Table IV. Hammerhead Ribozyme and Target Sequences

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6314	UGCGACAA CUGAUGAG X CGAA ACCGAGUC	1213	GACTCGGT T TIGICGCA	2458
6315	CUGCGACA CUGAUGAG X CGAA AACCGAGU	1214	ACTCGGTT T TGICGCAG	2459
6316	GCUGCGAC CUGAUGAG X CGAA AAACCGAG	1215	CTCGGTTT T GTCCAGC	2460
6319	AAAGCUGC CUGAUGAG X CGAA ACAAAACC	1216	GGTTTTGT C GCAGCTTT	2461
6326	ACAAAGCA CUGAUGAG X CGAA AGCUGCGA	1217	TGCGAGCT T TGCTTTGT	2462
6327	AACAAAGC CUGAUGAG X CGAA AAGCUGCG	1218	CGCAGCTT T GCTTTGTT	2463
6331	AUUAACCA CUGAUGAG X CGAA AGCAAAGC	1219	GCTTTGCT T TGTTTAAT	2464
6332	CAUAAAAC CUGAUGAG X CGAA AAGCAAAG	1220	CTTIGCTT T GTTTAATG	2465
6335	UUUCAUUA CUGAUGAG X CGAA ACAAAAGC	1221	TGCTTTGT T TAATGAAA	2466
6336	GUUCAUU CUGAUGAG X CGAA AACAAAGC	1222	GCTTTGTT T AATGAAAC	2467
6337	UGUUUCAU CUGAUGAG X CGAA AAACCAAAG	1223	CTTIGTTT A ATGAAACA	2468
6350	AGGUUUAC CUGAUGAG X CGAA AGUGUGUU	1224	AACACACT T GTAAACCT	2469
6353	AAGAGGUU CUGAUGAG X CGAA ACAAGUGU	1225	ACACTTGT A AACCTCTT	2470
6359	GUGCAAAA CUGAUGAG X CGAA AGGUUUAC	1226	GTAAACCT C TTTIGCAC	2471
6361	AAGUGCAA CUGAUGAG X CGAA AGAGGUUU	1227	AAACCTCT T TTGCACTT	2472
6362	AAAGUGCA CUGAUGAG X CGAA AAGAGGUU	1228	AACCTCTT T TGCACCTT	2473
6363	CAAAGUGC CUGAUGAG X CGAA AAAGAGGU	1229	ACCICTTT T GCACTTTG	2474
6369	CUUUUCA CUGAUGAG X CGAA AGUGCAAA	1230	TTIGCACT T TGAAAAG	2475
6370	UCUUUUUC CUGAUGAG X CGAA AAGUGCAA	1231	TTIGCACTT T GAAAAAGA	2476
6381	UCCCCCUG CUGAUGAG X CGAA AUUCUUUU	1232	AAAAGAAT C CAGGGGA	2477
6394	AGGUGCUC CUGAUGAG X CGAA AGCAUCCC	1233	GGGATGCT C GAGCACCT	2478
6405	AAAUGUU CUGAUGAG X CGAA ACAGGUGC	1234	GCACCTGT A AACAAATT	2479
6412	GUUGAGAA CUGAUGAG X CGAA AUUGUUUA	1235	TAAACAAT T TTCTAAC	2480
6413	GGUUGAGA CUGAUGAG X CGAA AAUJGUUU	1236	AAACAATT T TCTCAACC	2481
6414	AGGUJUGAG CUGAUGAG X CGAA AAAJUGUU	1237	AAACAATT T CTCAACCT	2482
6415	UAGGUJUGA CUGAUGAG X CGAA AAAAUJGU	1238	ACAATTTT C TCAACCTA	2483
6417	AAUAGGUU CUGAUGAG X CGAA AGAAAAUJU	1239	AATTTTCT C AACCTATT	2484
6423	ACAUAAA CUGAUGAG X CGAA AGGUJUGAG	1240	CTCAACCT A TTIGATGT	2485
6425	GAACAUCA CUGAUGAG X CGAA AUAGGUUG	1241	CAACCTAT T TGATGTTC	2486
6426	UGAACAUCA CUGAUGAG X CGAA AAUAGGUU	1242	AACCTATT T GATGTICA	2487
6432	UUUAIJUUG CUGAUGAG X CGAA ACAUCAAA	1243	TTIGATGT T CAAATAAA	2488
6433	CUUJAUUU CUGAUGAG X CGAA AACAUCAA	1244	TTIGATGTT C AAATAAAG	2489
6438	UAAUJCUU CUGAUGAG X CGAA AUJUGAAC	1245	GTCAAAT A AAGAATTA	2490

Table V. Hairpin Ribozyme and Target sequences

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Pos	RZ	Seq. No.	ID.	Substrate	Seq. No.	ID.
48	GCCAGG AGAA GUUG ACCAGAGAACAX GUACAUUACCUGGUAX	2491	CAAC AGTC CCTGGC	2604		
58	CUGGAG AGAA GCCA ACCAGAGAACAX GUACAUUACCUGGUAX	2492	TGCC CGTC CTCCAG	2605		
172	CGACCC AGAA GAGC ACCAGAGAACAX GUACAUUACCUGGUAX	2493	GCTC CGTC GGGTCG	2606		
184	CGGUGA AGAA GGGG ACCAGAGAACAX GUACAUUACCUGGUAX	2494	CGCC GGCT TCACCG	2607		
193	CCUGCG AGAA GGUG ACCAGAGAACAX GUACAUUACCUGGUAX	2495	CACC GGAC CGCAGG	2608		
297	GAAACC AGAA GGCC ACCAGAGAACAX GUACAUUACCUGGUAX	2496	GGCC CGCC CGTTTC	2609		
301	CUCAGA AGAA GGGG ACCAGAGAACAX GUACAUUACCUGGUAX	2497	CGCC GGTT TCTGAG	2610		
316	CGGCAG AGAA GAAG ACCAGAGAACAX GUACAUUACCUGGUAX	2498	CTTC TGCC CTGCGG	2611		
332	GGTIGCA AGAA GUGU ACCAGAGAACAX GUACAUUACCUGGUAX	2499	ACAC GGTC TGCACC	2612		
343	GGCCGCG AGAA GGGU ACCAGAGAACAX GUACAUUACCUGGUAX	2500	ACCC TGCC CGGGC	2613		
356	GUCAUG AGAA GUGG ACCAGAGAACAX GUACAUUACCUGGUAX	2501	CCAC GGAC CATGAC	2614		
410	CCUTUG AGAA GAUG ACCAGAGAACAX GUACAUUACCUGGUAX	2502	CATC AGAT CCAAGG	2615		
442	GGUGCG AGAA GUUC ACCAGAGAACAX GUACAUUACCUGGUAX	2503	GAAC CGTC CGCAGC	2616		
449	AUCUTUG AGAA GGGG ACCAGAGAACAX GUACAUUACCUGGUAX	2504	CCGC AGCT CAAGAT	2617		
470	CCCAAG AGAA GCUC ACCAGAGAACAX GUACAUUACCUGGUAX	2505	GAGC GGCC CCTGGG	2618		
507	GUACAC AGAA GGCU ACCAGAGAACAX GUACAUUACCUGGUAX	2506	AGCC CGCC GTGTAC	2619		
534	CUCGUA AGAA GGGC ACCAGAGAACAX GUACAUUACCUGGUAX	2507	GGCC CGCC TACGAG	2620		
555	GGCGGC AGAA GCGG ACCAGAGAACAX GUACAUUACCUGGUAX	2508	CCGC GGCC GCCGCC	2621		
558	GUUGGC AGAA GCGG ACCAGAGAACAX GUACAUUACCUGGUAX	2509	CGCC CGCC GCCAAC	2622		
584	AGGCCG AGAA GACC ACCAGAGAACAX GUACAUUACCUGGUAX	2510	GGTC AGAC CGGCT	2623		
589	AGGGGA AGAA GGUC ACCAGAGAACAX GUACAUUACCUGGUAX	2511	GACC GGCC TCCCCT	2624		
601	ACCCGG AGAA GUAG ACCAGAGAACAX GUACAUUACCUGGUAX	2512	CTAC GGCC CGGGT	2625		
628	CGUDGG AGAA GAAC ACCAGAGAACAX GUACAUUACCUGGUAX	2513	GTTC GGCT CCAACG	2626		
637	CCCCCA AGAA GUUG ACCAGAGAACAX GUACAUUACCUGGUAX	2514	CAAC GGCC TGGGG	2627		
680	AGCAUC AGAA GCCU ACCAGAGAACAX GUACAUUACCUGGUAX	2515	AGCC CGCT GATGCT	2628		
683	AGUAGC AGAA GGGG ACCAGAGAACAX GUACAUUACCUGGUAX	2516	CCGC TGAT GCTACT	2629		
698	UGCGGC AGAA GGUG ACCAGAGAACAX GUACAUUACCUGGUAX	2517	CAAC CGCC GCCGCA	2630		
701	AGCUCC AGAA GCGG ACCAGAGAACAX GUACAUUACCUGGUAX	2518	CCGC CGCC GCAGCT	2631		

Table V. Hairpin Ribozyme and Target sequences

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707	GGCGGAC AGAA GCGG ACCAGAGAACAX GUACAUUACCUGGUAA	2519	CCGC AGCT GTGCC	2632
710	AAAGGC AGAA GCUG ACCAGAGAACAX GUACAUUACCUGGUAA	2520	CAGC TGTC GCCTTT	2633
725	CCGTCGG AGAA GCAG ACCAGAGAACAX GUACAUUACCUGGUAA	2521	CTGC AGCC CCACCG	2634
793	CCGGCG AGAA GGCC ACCAGAGAACAX GUACAUUACCUGGUAA	2522	GGCC GCCC CGCCGG	2635
797	AAUGCC AGAA GGCC ACCAGAGAACAX GUACAUUACCUGGUAA	2523	GGCC GCCC GGCAATT	2636
1078	GGAGCC AGAA GGCC ACCAGAGAACAX GUACAUUACCUGGUAA	2524	GGCC TGCC GGCTCC	2637
1082	UUCGGG AGAA GGCA ACCAGAGAACAX GUACAUUACCUGGUAA	2525	TGCC GGCT CCCCAA	2638
1206	GUCCUC AGAA GACC ACCAGAGAACAX GUACAUUACCUGGUAA	2526	GGTC TGCT GGAGAC	2639
1244	AUCAG AGAA GGCU ACCAGAGAACAX GUACAUUACCUGGUAA	2527	AGCC CGCT CATGAT	2640
1273	AGGCCA AGAA GUUC ACCAGAGAACAX GUACAUUACCUGGUAA	2528	GAAC AGCC TGGCT	2641
1289	UCGGCC AGAA GGGG ACCAGAGAACAX GUACAUUACCUGGUAA	2529	TCCC TGAC GGCCGA	2642
1293	CTGGUC AGAA GUCA ACCAGAGAACAX GUACAUUACCUGGUAA	2530	TGAC GGCC GACCAG	2643
1296	CAUCUG AGAA GCCG ACCAGAGAACAX GUACAUUACCUGGUAA	2531	CGGC CGAC CAGATG	2644
1301	CUGACC AGAA GGUC ACCAGAGAACAX GUACAUUACCUGGUAA	2532	GACC AGAT GGTCAG	2645
1363	UGAAGG AGAA GGUA ACCAGAGAACAX GUACAUUACCUGGUAA	2533	TACC AGAC CCTTCA	2646
1397	AGGUUG AGAA GUUA ACCAGAGAACAX GUACAUUACCUGGUAA	2534	TTAC TGAC CAACT	2647
1520	CCAAUC AGAA GGAU ACCAGAGAACAX GUACAUUACCUGGUAA	2535	ATCC TGAT GATTGG	2648
1568	GGAGCA AGAA GUAG ACCAGAGAACAX GUACAUUACCUGGUAA	2536	CTAC TGTT TGCTCC	2649
1643	GUAGCC AGAA GCAU ACCAGAGAACAX GUACAUUACCUGGUAA	2537	ATGC TGCT GGCTAC	2650
1661	AUGCGG AGAA GAGA ACCAGAGAACAX GUACAUUACCUGGUAA	2538	TCTC GGTT CGGCAT	2651
1745	GUGGUG AGAA GAAA ACCAGAGAACAX GUACAUUACCUGGUAA	2539	TTTC TGTC CAGCAC	2652
1826	UUGGCC AGAA GCTG ACCAGAGAACAX GUACAUUACCUGGUAA	2540	CACC TGAT GGCCAA	2653
1844	UGCGAGG AGAA GGCC ACCAGAGAACAX GUACAUUACCUGGUAA	2541	GGCC TGAC CCTGCA	2654
1868	UGGGCC AGAA GGUG ACCAGAGAACAX GUACAUUACCUGGUAA	2542	CAGC GGCT GGCCCCA	2655
1877	AGGAGG AGAA GGGC ACCAGAGAACAX GUACAUUACCUGGUAA	2543	GCCC AGCT CCTCT	2656
1976	UCCAGC AGAA GGUC ACCAGAGAACAX GUACAUUACCUGGUAA	2544	GACC TCCT GCTGGA	2657
1979	AUCUCC AGAA GCAG ACCAGAGAACAX GUACAUUACCUGGUAA	2545	CTGC TGCT GGAGAT	2658
2002	CAUGUA AGAA GUUG ACCAGAGAACAX GUACAUUACCUGGUAA	2546	CCAC CGCC TACATG	2659
2049	GUUUG AGAA GUCU ACCAGAGAACAX GUACAUUACCUGGUAA	2547	AGAC GGAC CAAAGC	2660
2142	CUCUCA AGAA GUGG ACCAGAGAACAX GUACAUUACCUGGUAA	2548	CCAC AGTC TGAGAG	2661

Table V. Hairpin Ribozyme and Target sequences

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2169	UAUCUG AGAA GUGU ACCAGAGAACAX GUACAUUACCUGGUAX	2549	ACAC GGTT CAGATA	2662
2184	AAAUGC AGAA GGGG ACCAGAGAACAX GUACAUUACCUGGUAX	2550	TCCC TGCT GCATT	2663
2226	GCAGGA AGAA GAAU ACCAGAGAACAX GUACAUUACCUGGUAX	2551	ATTC TGTC TCCTGC	2664
2301	ACUAAG AGAA GAGC ACCAGAGAACAX GUACAUUACCUGGUAX	2552	GCTC AGTT CTAGT	2665
2322	ACAGAA AGAA GAAG ACCAGAGAACAX GUACAUUACCUGGUAX	2553	CTTC TGTC TTCTGT	2666
2329	GUUCCC AGAA GAAG ACCAGAGAACAX GUACAUUACCUGGUAX	2554	CTTC TGTG GGGAC	2667
2373	AAAGAG AGAA GUTA ACCAGAGAACAX GUACAUUACCUGGUAX	2555	TAAC AGCT CTCTT	2668
2429	GAGUUC AGAA GUGA ACCAGAGAACAX GUACAUUACCUGGUAX	2556	TCAC AGCT GAACTC	2669
2439	CCCAUA AGAA GAGU ACCAGAGAACAX GUACAUUACCUGGUAX	2557	ACTC AGTC TATGG	2670
2768	UAGGGG AGAA GCCU ACCAGAGAACAX GUACAUUACCUGGUAX	2558	AGGC AGAT CCCCTA	2671
2812	CUCUGA AGAA GCAG ACCAGAGAACAX GUACAUUACCUGGUAX	2559	CTGC AGAT TCAGAG	2672
2835	GCCAGA AGAA GAGC ACCAGAGAACAX GUACAUUACCUGGUAX	2560	GCTC TGCC TCTGGC	2673
2944	ACAAAA AGAA GGAA ACCAGAGAACAX GUACAUUACCUGGUAX	2561	TTCC TGAT TTGT	2674
3009	UCCUGA AGAA GACC ACCAGAGAACAX GUACAUUACCUGGUAX	2562	GGTC AGCT TCAGGA	2675
3021	CACUGG AGAA GGUC ACCAGAGAACAX GUACAUUACCUGGUAX	2563	GACC TGTT CCAGTG	2676
3083	ACAGUG AGAA GUUC ACCAGAGAACAX GUACAUUACCUGGUAX	2564	GAAC TGTT CACTGT	2677
3242	GCUCAG AGAA GUAU ACCAGAGAACAX GUACAUUACCUGGUAX	2565	ATAC AGTT CTGAGC	2678
3258	GAGCAA AGAA GGCU ACCAGAGAACAX GUACAUUACCUGGUAX	2566	AGCC AGAC TTGCTC	2679
3312	UGCGGG AGAA GCAA ACCAGAGAACAX GUACAUUACCUGGUAX	2567	TTGC AGAC CCCCCA	2680
3360	AUAUAG AGAA GGAC ACCAGAGAACAX GUACAUUACCUGGUAX	2568	GTCC AGCT CCTATT	2681
3402	CUUGAC AGAA GCUU ACCAGAGAACAX GUACAUUACCUGGUAX	2569	AAGC AGCT GTCAAG	2682
3420	GAACAC AGAA GUUC ACCAGAGAACAX GUACAUUACCUGGUAX	2570	AGAC AGCT GTGTC	2683
3475	GACAGC AGAA GUCC ACCAGAGAACAX GUACAUUACCUGGUAX	2571	GGAC CGTT GCTGTC	2684
3496	GCCCCA AGAA GCUU ACCAGAGAACAX GUACAUUACCUGGUAX	2572	AGGC TGAC TGGGGC	2685
3512	UACGUA AGAA GACC ACCAGAGAACAX GUACAUUACCUGGUAX	2573	GGTC AGAT TACGTA	2686
3595	GAACGG AGAA GGGG ACCAGAGAACAX GUACAUUACCUGGUAX	2574	CCCC CGCC CCGTC	2687
3600	GUAGGG AGAA GGGC ACCAGAGAACAX GUACAUUACCUGGUAX	2575	GCCC CGTT CCCTAC	2688
3610	AGUGGA AGAA GUAG ACCAGAGAACAX GUACAUUACCUGGUAX	2576	CTAC CGCC TCCACT	2689
3626	GAAAUG AGAA GGCA ACCAGAGAACAX GUACAUUACCUGGUAX	2577	TGCC AGCT CATTC	2690
3693	AGGGAA AGAA GCCC ACCAGAGAACAX GUACAUUACCUGGUAX	2578	GGGC AGCC TTCCCT	2691

Table V. Hairpin Ribozyme and Target sequences

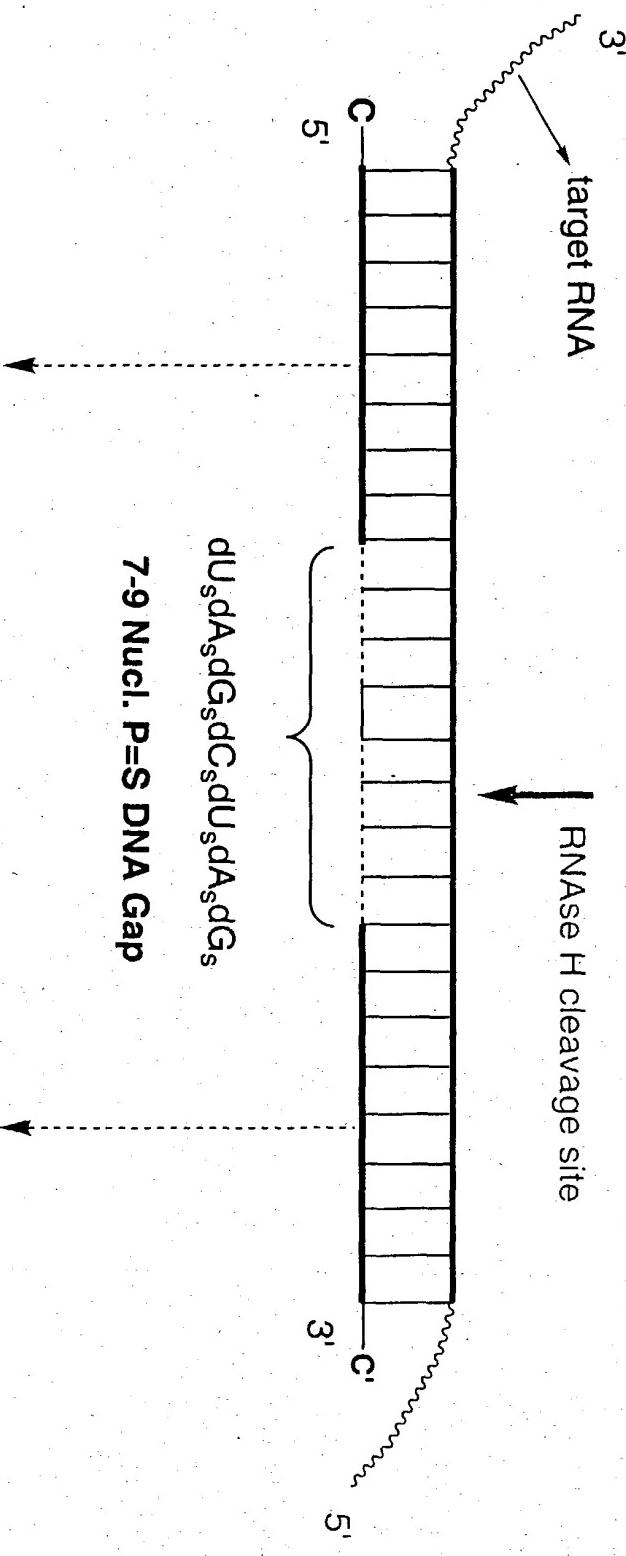
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3848	AGCCCG AGAA GCUA ACCAGAGAAACA X GUACAUUACCUGGUA	2579	TAGC TGCT CGGGCT	2692
3902	UGGACA AGAA GAAA ACCAGAGAAACA X GUACAUUACCUGGUA	2580	TTTC TGAT TGTCCA	2693
4047	UAAACA AGAA GCAA ACCAGAGAAACA X GUACAUUACCUGGUA	2581	TTGC TGTT TGTATA	2694
4157	AUCCAG AGAA GAAU ACCAGAGAAACA X GUACAUUACCUGGUA	2582	ATTC TGTT CTGGAT	2695
4359	AUAGGC AGAA GGAA ACCAGAGAAACA X GUACAUUACCUGGUA	2583	ATCC AGAT GCCTAT	2696
4696	UCAACU AGAA GAUG ACCAGAGAAACA X GUACAUUACCUGGUA	2584	CATC AGAT GATTGA	2697
4795	ACCAAC AGAA GCCA ACCAGAGAAACA X GUACAUUACCUGGUA	2585	TGGC TGAT GTTGAT	2698
4847	GGGGAA AGAA GAGG ACCAGAGAAACA X GUACAUUACCUGGUA	2586	CCTC TGCT TTCCCC	2699
5032	CUCCAG AGAA GAAG ACCAGAGAAACA X GUACAUUACCUGGUA	2587	CTTC TGCC CTGGAG	2700
5086	AACUGA AGAA GCCA ACCAGAGAAACA X GUACAUUACCUGGUA	2588	TGGC AGCT TCAGTT	2701
5092	CUCUAG AGAA GAAG ACCAGAGAAACA X GUACAUUACCUGGUA	2589	CTTC AGTT CTAGAG	2702
5285	AUCAAA AGAA GCAC ACCAGAGAAACA X GUACAUUACCUGGUA	2590	GTGC AGTC TTGAT	2703
5489	UUUGUA AGAA GUGU ACCAGAGAAACA X GUACAUUACCUGGUA	2591	ACAC TGAT TACAAA	2704
5590	AGCGAG AGAA GCCU ACCAGAGAAACA X GUACAUUACCUGGUA	2592	AGGC AGAT CTGCTT	2705
5595	UCCCCA AGAA GAUC ACCAGAGAAACA X GUACAUUACCUGGUA	2593	GATC TGCT TGGGGA	2706
5803	GUUGGA AGAA GAGC ACCAGAGAAACA X GUACAUUACCUGGUA	2594	GCTC TGTT TCCAAAC	2707
5886	AAUAGA AGAA GCAA ACCAGAGAAACA X GUACAUUACCUGGUA	2595	TTGC TGCC TCTATT	2708
5916	UCAAAA AGAA GUUC ACCAGAGAAACA X GUACAUUACCUGGUA	2596	GCAC TGTC TTTGA	2709
6087	AAAGGG AGAA GUGU ACCAGAGAAACA X GUACAUUACCUGGUA	2597	ACAC AGAC CCCTTT	2710
6154	ACACAGA AGAA GCCA ACCAGAGAAACA X GUACAUUACCUGGUA	2598	TGCC AGTT TCTGTT	2711
6160	UGAGAG AGAA GAAA ACCAGAGAAACA X GUACAUUACCUGGUA	2599	TTTC TGTT CTCTCA	2712
6284	GUAUCC AGAA GCAA ACCAGAGAAACA X GUACAUUACCUGGUA	2600	TTGC CGAT GCATAC	2713
6300	AGUCAC AGAA GUAA ACCAGAGAAACA X GUACAUUACCUGGUA	2601	TTAC TGAT GTGACT	2714
6311	CGACAA AGAA GAGU ACCAGAGAAACA X GUACAUUACCUGGUA	2602	ACTC GGT TTGTCG	2715
6322	AAGCAA AGAA CGCA ACCAGAGAAACA X GUACAUUACCUGGUA	2603	TCGC AGCT TTGCTT	2716

Table VI. Ribozymes for in vitro Cleavage

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<u>Seq. ID. No</u>	<u>ALIAS</u>	<u>% CLEAVED ABOVE BACKGROUND 2 HOURS</u>
2727	[A <sub>s</sub> T <sub>s</sub> A <sub>s</sub> G <sub>s</sub> A <sub>s</sub> T <sub>s</sub> T <sub>s</sub> ] cUGAU Gaggcc gaaaggcc Gaa Aggcacac B	3.2
2728	[G <sub>s</sub> C <sub>s</sub> G <sub>s</sub> G <sub>s</sub> A <sub>s</sub> A <sub>s</sub> C <sub>s</sub> C <sub>s</sub> ] cUGAU Gaggcc gaaaggcc Gaa Agaungaug B	11
2729	[T <sub>s</sub> T <sub>s</sub> T <sub>s</sub> C <sub>s</sub> C <sub>s</sub> G <sub>s</sub> A <sub>s</sub> ] cUGAU Gaggcc gaaaggcc Gaa Agacaca B	1
2730	[A <sub>s</sub> T <sub>s</sub> T <sub>s</sub> C <sub>s</sub> C <sub>s</sub> T <sub>s</sub> G <sub>s</sub> ] cUGAU Gaggcc gaaaggcc Gaa Auuccuu B	80.8



Novel nuclease resistant flanking sequences with strong hybridization properties

**Figure 1. Schematic Representation of a Nucleic Acid Molecule with Novel Chemical Modifications Binding to RNA**

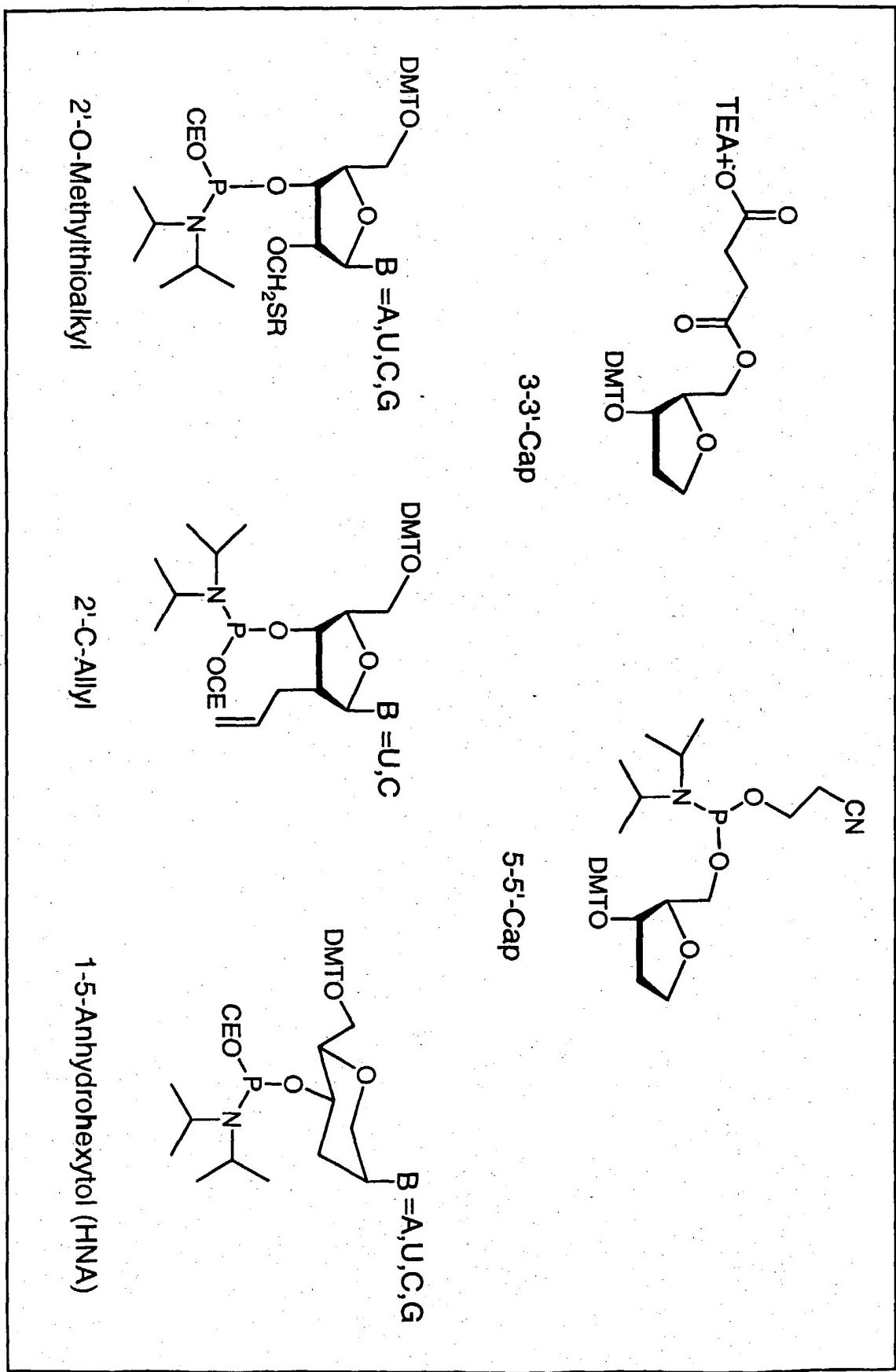
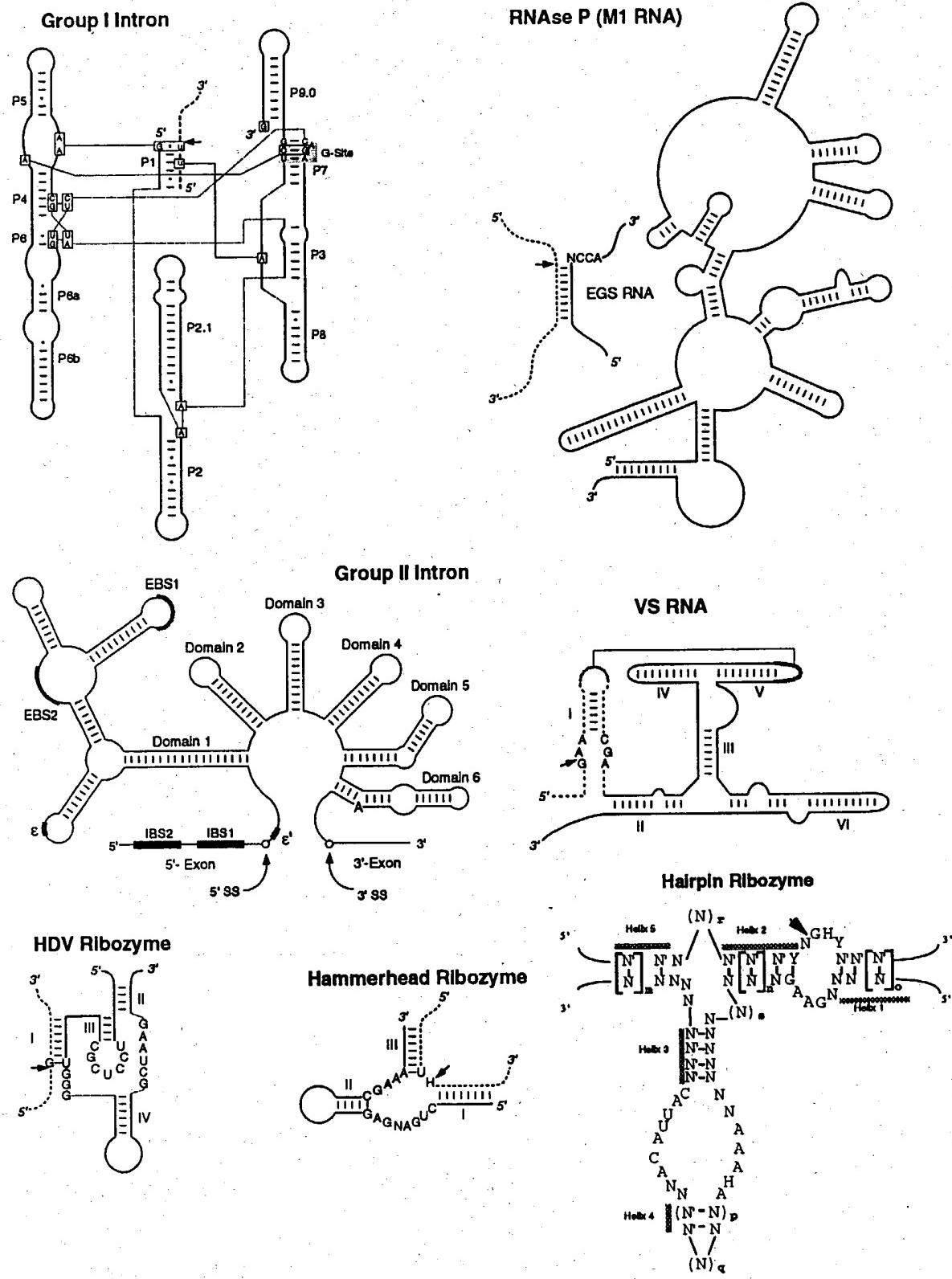


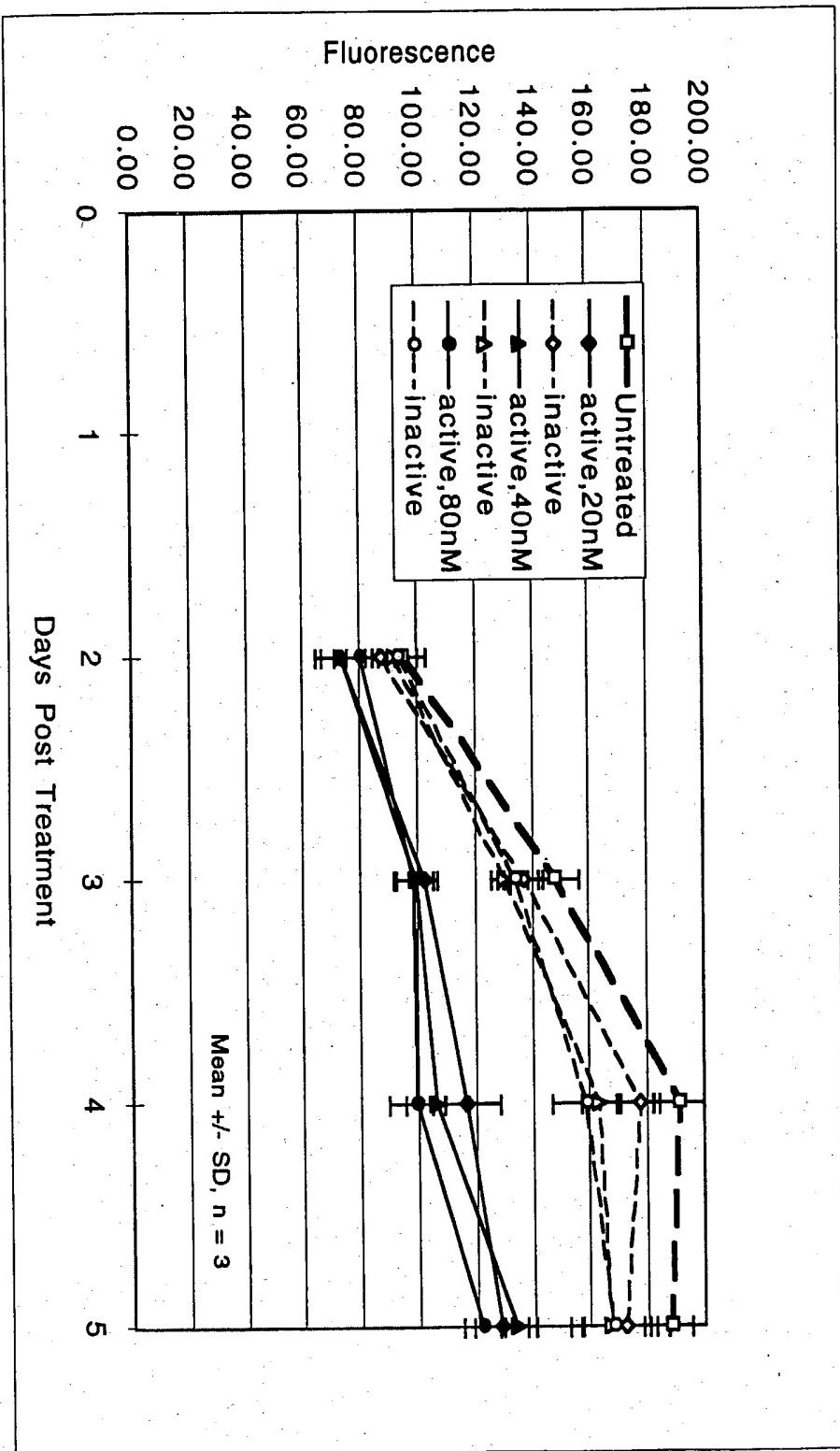
Figure 2. Chemical Modifications Suitable for Incorporation into Nucleic Acid Molecules

**Figure 3: Ribozyme Motifs**

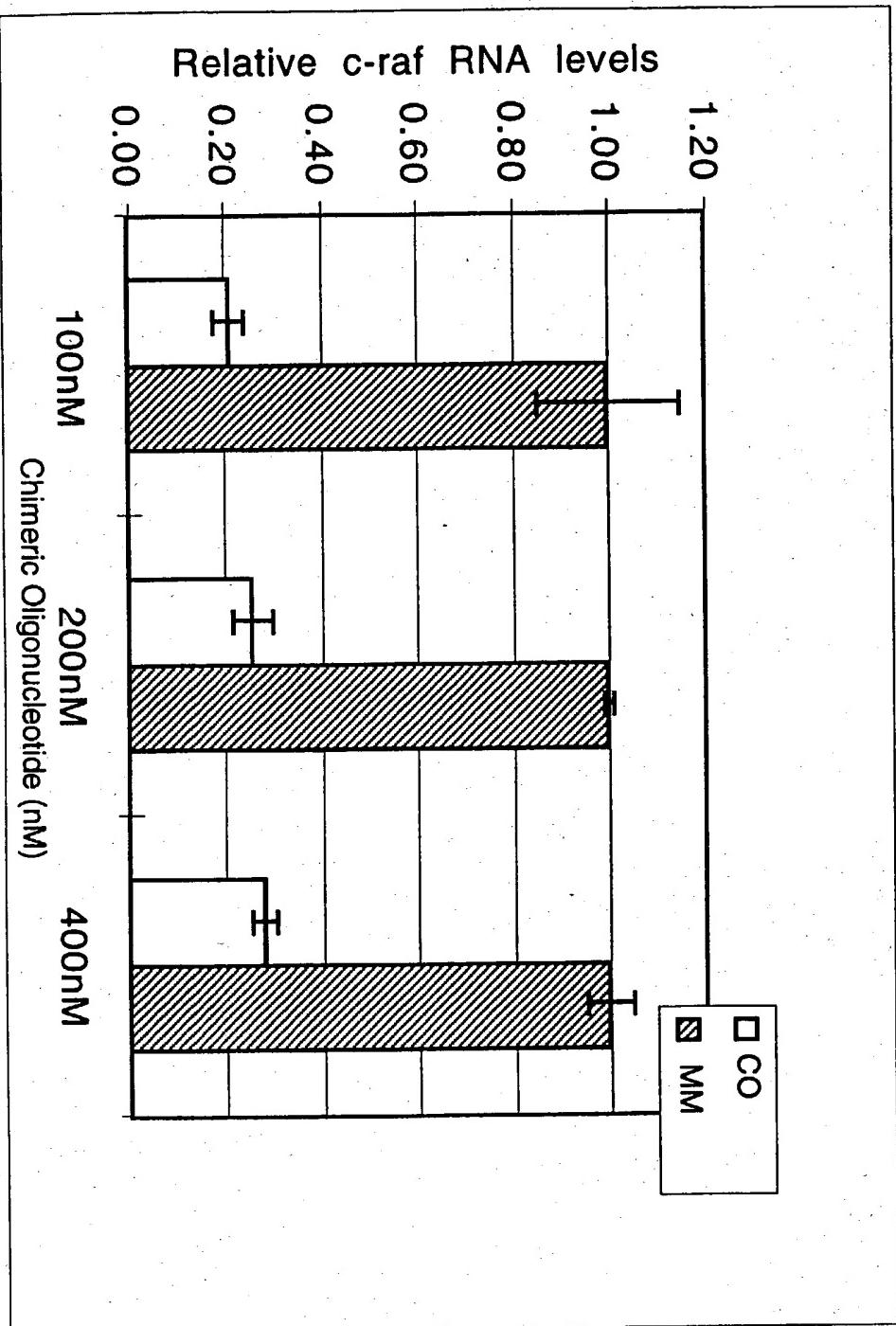
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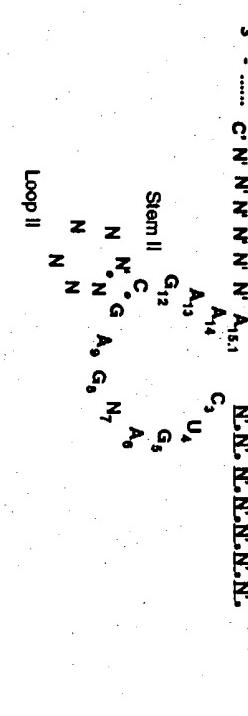
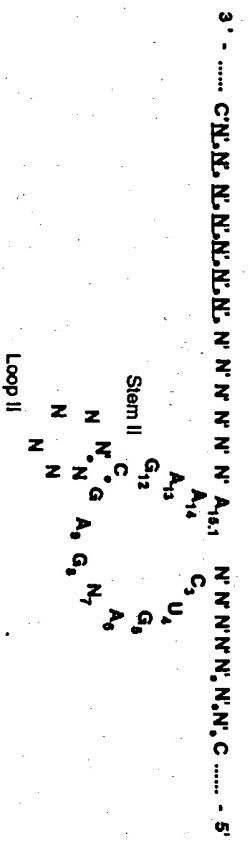
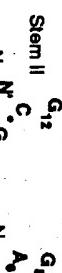
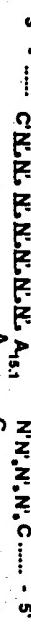
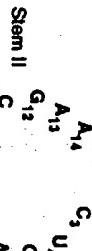
**Figure 4. Proliferation of MCF-7 Cells Following Treatment with Active and Inactive Ribozymes With Novel Chemical Modifications.**



**Figure 5: c-raf RNA Levels in PC-3 Cells Following Treatment with GSV delivered Chimeric Oligonucleotides (CO) Compared to Mismatch (MM) Control**



*Figure 6a Chimeric Ribozyme Molecule*<sup>233/235</sup>



**Figure 6b**

